

# THE BOSTON Medical and Surgical JOURNAL

VOLUME 190

APRIL 17, 1924

NUMBER 16

## Original Articles

### Intermittent Intestinal Obstruction

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COMPLETE intestinal obstruction from any cause produces symptoms which call loudly for surgical consideration. A patient with abdominal pain, vomiting, tender, without fever or fecal stools and perhaps distended, should not be "observed" except with every available facility for surgical relief. The poisons which develop in food materials above the obstruction work rapidly, and the sooner they are out of the body the longer the owner may stay in. Recovery after relief of obstruction within twelve hours of onset is hopeful, after twenty-four hours possible, and after thirty-six hours doubtful.

Diagnosis of intermittent intestinal obstruction means in many cases an early diagnosis of some lesion that will produce total obstruction if not removed. A diagnosis followed by operation may relieve suffering and avert death. To reach this diagnosis one must abandon the habit of thinking every patient who includes constipation among his complaints, and is relieved of this symptom by constant use of cathartics or laxatives, is sound. On the contrary, the necessity for such constant whipping of the intestines is suspicious. The diagnosis will be more certainly reached if we assume that normal intestines in a normal abdomen will act sufficiently if the intake contains enough rough stuff and lubricant, and that failure to respond to the presence of rough stuff and excess of lubricants indicates mechanical obstruction in the intestinal tube or some other real pathology in the abdomen.

Partial intestinal obstruction may appear and disappear for years. Hours of pain may be followed by weeks of comfort, and the cause remain obscure because of the common use of vague and overworked diagnoses such as "acute indigestion," "intestinal indigestion," "adhesions," and the supposedly frequent "ptomaine poisoning," or food disagreements.

There seem to be two points of view with reference to patients who complain of discomfort between the diaphragm and the anus. One group of practitioners, thinking of the chemical processes of digestion, strives to adapt the food in quality and quantity to the supposed idiosyncrasy of the patient. The other group, having in mind pathological and mechanical condi-

tions, attempts to fit the patient to use every reasonable diet with comfort.

If the first group will put a definite and reasonable time limit to their attempts and not assume that the quiet periods of cholecystitis, strictured and kinked appendices, and the different obstructions to normal peristalsis are cures, more cases will get early opportunity for real and permanent relief.

If the second group can learn to distinguish between conditions which may be pathological, but cause no symptoms, and those which are responsible for the patients' distress, then surgery will have an even greater popularity than now. The diagnosis and treatment of "intestinal indigestion" and the removal of an appendix from a patient with adenocarcinoma of the colon are equally useless in restoring permanent health.

Lesions which may cause obstruction are found at all points in the intestinal tube. Between the oesophagus and the anal ring the tube has narrow spots guarded by involuntary muscle sphincters which can become spastic and close the tube, to the disadvantage of the owner. Cardiospasm, pyloric spasm, and anal spasm are often, though not always, recognized, but x-ray observation has shown that these are not the only places where spastic contraction of circular fibers may cause partial obstruction or at least alteration of the peristaltic rate.

There seems to be no universal cause for these spastic conditions. We know that they are frequently associated with lesions in the appendix, gall-bladder or stomach, and that they often disappear after removal of an obstructed appendix or gall-bladder or healing of some stomach or duodenal lesion. We know, too, the relief which follows section of the spastic pylorus in infants, but not its cause. Perhaps there is occasional defect in the construction of all these spastic sphincters as there appears to be in infants.

Though obstructive lesions are found at all points in the digestive tube the predominant symptoms are gastric, no matter where the lesion may be. Occasional vomiting is the rule—possibly the early stage of a reversed peristaltic wave which, if repeated, empties the intestine into the stomach. Nausea is present at other

times—possibly from less vigorous reversed peristalsis. Abdominal pain in waves of peristalsis which beat against the obstruction is common. Visible and palpable peristalsis is present if the obstruction is old enough to cause hypertrophy behind it and the abdominal wall is thin. Blood, mucus and diseased tissue are present in the stools according to the cause and location of the obstruction, but the story in plain English includes the constant use of laxatives or cathartics over a long period; occasions of nausea with abdominal discomfort; occasions of vomiting with much abdominal pain and stools abnormal in consistency and size. To this, patients may add their statement of inability to take certain foods, drugs or physical exercises which have at some time preceded their attacks, and their suffering from "gas."

It is often as difficult as it is important to make the diagnosis. X-ray examination may fail to give information, or even mislead. The following cases will show some of the difficulties to be met in the diagnosis.

The first case has been so well studied that it seems worth while to give it at some length. The early history was obtained through the courtesy of one of our best Boston hospitals.

**CASE 1.** A woman, 42, was admitted in 1907 with acute appendicitis—not ruptured. Appendix was removed, drain was left in four days, and she was discharged in 17 days, "much relieved."

She was readmitted in March, 1917, with history as follows:

"Beginning about one year or so after leaving the hospital, patient began to have attacks of crampy abdominal pain, which during the past year have become more frequent and more severe. Pain is in hypogastrium and right lower quadrant, at times severe enough to double patient up. It does not radiate; it is not related to meals; it is more apt to occur when patient is constipated; it is occasionally accompanied by nausea and vomiting. Attacks now come about every two weeks. Between attacks patient is free from pain. Bowels constipated since previous operation so that medicine must be taken all the time to obtain a movement every other day. Patient has not gone more than three days at any time without having a movement. Chills and fever with attacks; probably only chilly sensations. Patient thinks she has not gained weight and strength as she should have since her operation."

Examination of Abdomen—"Soft, slightly rounded, tympanitic. It feels as if the intestines were close to the abdominal scar and could almost be felt. Gurgling heard and felt in this region. No masses, spasm, tenderness or herniae."

Bismuth x-ray showed "Stomach normal in outline, position and peristalsis. Good sphincter, and first portion of duodenum seen. No gastric stasis. Cecum movable and not definitely tender. Examination of colon unsatisfactory. No definite lesion found."

A cholecystectomy was done and the laboratory report was "chronic cholecystitis." She was discharged 17 days after the operation, well healed.

In December, 1918, she was readmitted after two months' comfort, again complaining of weekly or monthly attacks of "indigestion," consisting of abdominal cramps with gas. "She noticed a lump in right lower quadrant, and this tended to shift to left lower quadrant." No jaundice, no urinary symptoms,

no sour stomach, vomits occasionally, generally constipated, and uses oil enemas. There are gurgling sounds heard as abdomen is inspected, no masses, distended moderately. "Bismuth x-rays of gastrointestinal tract entirely negative."

Diagnosis—"Probably abdominal adhesions, the disability enough to justify exploration."

She was seen later by a medical consultant and his notes read: "The condition is one of adhesions with a tendency to blocking of gas in the intestines at times, with distress. If tired, she will have trouble from time to time, but operation is a last resort here." A diet was advised and she was discharged after 20 days.

Six months later she was admitted to the medical side with the same story of recurring pain but no vomiting, and a gain of 10 or 15 pounds. Careful physical examination disclosed nothing remarkable. Note says: "Patient has adhesions (post-operative) and is improving. Comes because of persistence, not severity, of pain. In view of improvement, operative treatment not advisable."

In February, 1921, I saw her just after one of her attacks of abdominal cramp with vomiting. She had gurgling, visible peristalsis, and an intestine which could be felt at first in spasm and then lost as the spasm passed off. She had done no work for three years. In the hope that something might show at this time, she had a third series of plates at one of our best laboratories, both mouth and enema. They were quite negative except for suggestion of adhesion between sigmoid and transverse colon.

At the Elliot Hospital, February 21, 1921, her abdomen was opened. The only visible or palpable adhesions were between the omentum and the cholecystectomy scar.

A loop of hypertrophied ileum was found to contain a freely movable concretion the size of a pullet's egg, and between concretion and the cecum were two definite constrictions of the gut. This portion of the intestine, with some enlarged mesenteric lymph nodes, was resected. The ends were joined and the wound closed without drainage. Her recovery was uneventful; she has gained 30 pounds in weight and so far she has had neither abdominal pain nor vomiting. The tissue was given to Dr. William F. Whitney, who had not completed his examination at the time of his death, and I am indebted to Dr. S. B. Wolbach for the description.

"A length of intestine, hardened in formalin, measuring under slight tension 45 cm. long. There are two constrictions which have encircled the intestine, separating off a segment 21 cm. long. This segment is thin-walled, apparently normal in appearance, and contains a recognizable Peyer's patch. The circumference is 8.5 cm. The constriction at one end leaves a lumen not over 3 cm. in circumference, beyond which there is a very marked hypertrophy of the wall of the intestine, obliteration of the folds of the mucosa, and a circumference increased to 10 cm. Sections through this portion show a greatly thickened muscular coat, which measures approximately 4 mm. thick. At the other end the constriction is less marked, and the circumference of approximately 10 cm. There is much less hypertrophy at this end than the other, and there is less complete obliteration of the folds of the mucosa. Accompanying the specimen is an enterolith 5 x 3.5 cm. It is thoroughly dry, the surface is hard, brownish yellow, chalk-like consistency. When sawn through it reveals in the center a hard seed resembling the seed of a plum, 22 x 14 mm. in diameter. Outside of this is a thin chalky layer of material 1 cm. thick, then a dark brown laminated layer 1 cm. thick, which is polished by the saw. A third and final outer coat varies in thickness from 3 to 7 mm. and is porous, chalky and light brown in color." The specimen was sent to the Warren Museum.

CASE 2. W. B. D., Jr., 12 years; first seen in June, 1918, with history of recurring pain in epigastrium, constipated, but no pain with stool; active, thin and very wise for his years. He had learned to associate vomiting with relief of pain and often induced it by poking his fingers down his pharynx. When three months old he was operated by Dr. Fred T. Murphy for volvulus.

Examination showed a poorly nourished boy with a four-inch median scar on his abdomen; no tumor, no tenderness, and weight 77 pounds.—seven under his belt. He was not seen again until October, when he showed no change in weight and gave a history of several attacks of pain with induced vomiting. X-ray report was confusing. The first after barium by mouth:

A—"Examination was made of the gall-bladder region and entire gastro-intestinal tract. The plates show a peculiar dilatation of the colon, particularly in the splenic flexure region and descending colon. There is marked redundancy of the colon and we are not able to differentiate which is the sigmoid and which is the descending colon, and for that reason we would like to have the bismuth enema given. It is very possible that we are dealing with extreme dilatation of the terminal ileum, there being partial obstruction near the ileo-cecal valve." The second five days later:

B—"Examination was made of the entire gastro-intestinal tract by means of the barium meal and barium enema. The stomach and small intestines appear normal to the x-ray. The colon shows rather extensive dilatation. This involves particularly cecum, ascending colon, splenic flexure region and sigmoid."

"Both the barium meal and the enema point to partial obstruction of the colon in the region of the hepatic flexure. This obstruction is most likely due to adhesions. The emptying time of the cecum and the ascending colon is interfered with and there is secondary dilatation and stasis in this portion of the intestine. There is also a very redundant sigmoid, which, of course, is a congenital condition. One loop of the sigmoid is apparently fixed rather low down in the pelvis. This fixation may be the result of adhesions. There is no apparent obstruction, however, in this portion of the intestine."

A month later, Dr. George D. Cutler assisting, his abdomen was opened at the Elliot Hospital and his small intestine was found loosely adherent by thin bands of peritoneum in many places. The large intestine appeared normal. The omentum was lightly adherent to the old abdominal scar.

The peritoneal bands were tied and cut and the small intestine almost all released when his condition made it appear wise to end the operation before the last loop was perfectly free. His convalescence was simple, but he was not entirely freed from his pain and still occasionally induced vomiting.

In June, 1919, he had gained six pounds. At this time visible peristalsis was noted. In September he had gained another six pounds and had only three attacks during the summer.

X-ray examination at this time showed clearly a dilatation of some loop of small intestine, with normal stomach, duodenum, and colon. He was seen only three times during the next ten months. Each time there was visible peristalsis which could be stimulated by tapping the abdominal wall. There was further gain of six pounds, but his total weight was less than it should be and the attacks of pain and induced vomiting still occurred at intervals and caused him to lose some time from school, though he entered most of the sports. He was better, but not well. It was decided to try again to relieve his obstruction, and in September, 1920, Dr. Henry M. Chase assisting, his abdomen was opened at the Elliot Hospital. An enormous loop of jejunum was found,

more than two feet long and ending in a twist or volvulus a few inches from the cecum. After tying off the mesenteric vessels it was found that an additional length of jejunum, proximal to this, was supplied by the same vessels, and the whole was removed, with at least a gallon of fluid contents. An anastomosis was made and the abdomen closed without drainage. The recovery was uneventful and he has had no abdominal symptoms, though there was a tendency to loose stools for six months. Weight on leaving the hospital was 82½ pounds, and a year later 121 pounds. Dr. William F. Whitney's report on the specimen follows:

"The specimen from W. B. D., Jr., consisted of two pieces of small intestine. One was 73 cm. long, somewhat dilated and thickened. The other was 70 cm. long, 10 cm. in diameter, the wall thickened, with a mass of inflammatory lymph nodes in the mesentery.

"Diagnosis: chronic hypertrophy from obstruction. "There was no cause shown for the hypertrophy in the specimen received."

It is an interesting speculation whether the infantile volvulus produced the hypertrophy of the mesentery or a congenitally long mesentery was responsible for the volvulus of this segment. In this case the latter theory seems more reasonable.

The third case was E. P., 30. In 1917 some pelvic operation with abdominal suspension of uterus was done at one of the Boston hospitals. In 1918 she was under observation for active bladder symptoms, and right pus tube was removed by me. In July, 1920, she was ill in Chicago and the diagnosis of acute cholecystitis was made. A complete x-ray examination in one of our best laboratories at this time is summed up in a final paragraph: "In general, we consider the whole examination is negative as far as demonstration of any organic disease is concerned."

During the next year and a half she had occasional times of vomiting and much nausea, in spite of which she gained weight. In November, 1921, she decided for operative relief, and with Dr. Chase assisting, a cholecystectomy was done at the Elliot Hospital. Report from the Harvard Pathological Laboratory was: "Cholecystitis with one or two very small granular masses suggesting stones." Cigarette drain was removed after two days and then regurgitation of food began without nausea, pain, rise of temperature, or distention. Some diarrhea appeared on the tenth day but let up, and she went home in two weeks. There the vomiting or regurgitation continued without pain or other symptom except a little tenderness in region of cecum.

She was thoroughly examined by a medical consultant and again by x-ray without revealing the cause of her symptoms. Finally, on December 6, her abdomen was again opened at the Elliot Hospital. There were fresh adhesions from the cholecystectomy and old adhesions from the older pelvic condition. The only involvement of the digestive tube was an adhesion which tied the ileum, six inches from the cecum, into the pelvis and apparently caused an occasional angulation. Release of this has entirely relieved the symptoms so far.

CASE 4. L. K., 51. Digestive symptoms at intervals from 1907. Chief symptoms in 1911 were pain under left costal border, attacks of vomiting lasting two or three days, and no stools without laxatives. In 1919 she was in a Boston hospital for x-ray examination and observation for ten days and was dismissed with a diagnosis of ulcer of the stomach, and

a diet list. Ten months later she went to the Berkeley Infirmary for examination.

At this time she complained of recurring attacks of severe abdominal pain with vomiting. She gave a history of pelvic laparotomy in 1902 and climacteric in 1920 with no pelvic symptoms. She was using liquid paraffin constantly and had a daily liquid stool. She was losing weight rapidly and was willing to go through anything for relief.

Abdominal examination disclosed no tumor and no localized tenderness. Wassermann negative. Report from the radiologist says: "Evidence of pathology in the right lower quadrant. There is a 24-hour ileal stasis and more or less dilatation of the terminal loop of the ileum. This indicates to us that there is partial obstruction of the passage of the barium meal through the terminal ileum. In the light of the previous operation, we should be inclined to think that this obstruction is due to adhesions, possibly post-operative. There is no evidence of pathology in the colon itself. The stomach and duodenum appear normal."

September 24, 1921, Dr. Chase assisting, her abdomen was opened through the right rectus sheath. There was hypertrophy of the walls of the terminal ileum and appendix, but no adhesions or tumor in the field to account for it. Exploration with the hand disclosed a growth in the middle of the transverse colon. This was removed, anastomosis made, and the abdomen about ready for closure when further search disclosed a second independent growth in the upper sigmoid. A Murphy button was slipped in to short circuit the second obstruction and the abdomen closed with drain down to the anastomosis. October 15 the second growth was removed and anastomosis made here. She was discharged to her home November 2 with a small sinus which closed in a few days. The pathologist's report on the portion of the bowel removed was "adenocarcinoma."

Before operation her weight was 120, six months later 147. Fifteen months after operation attacks of colic and vomiting recurred, lasting a few days and leaving her in comfort. No tumor could be felt and her stools were normal. She was tender over the gall-bladder, more so with inspiration, and had acute pain at the tip of right shoulder, where nothing abnormal could be found.

A diagnosis of recurring acute cholecystitis was made and in June, 1923, a cholecystectomy was done at the Elliot Hospital with Dr. Chase. The incision gave an opportunity to see the point of anastomosis in the transverse colon, which showed no constriction and no adhesions. The sigmoid, which was adherent to the abdominal wall, could not be brought into view. No recurrence of growth could be felt. Recovery was uneventful. In November symptoms developed in right chest and abdomen, suggesting metastasis to lung and liver, and she died in February, 1924.

Two other cases of removal of adenocarcinoma of sigmoid remain well, one seven years with an artificial anus, and one four and a half years with an end-to-end anastomosis. The first was fifty-seven and had had two previous operations. The second was sixty-three and had no history suggesting abdominal disease previous to six months before operation.

CASE 5. H. C. F., 52 years. Seen in April, 1921, with Dr. Everett V. Hardwick, on account of severe abdominal pain and vomiting. About 1892 he had bloody stools for some weeks. In 1903 he had attacks of severe abdominal pain controlled by morphia. Present illness began in February, 1921, but he had carried on an active business until within

a few days. He had a left inguinal hernia of two years' duration and had lost about 70 pounds. He did not use laxatives, made no complaint of digestive symptoms, but took soda occasionally and sometimes induced vomiting with his finger.

X-ray examination showed a constant narrowing of the ascending colon two inches above the iliocecal opening.

After his abdomen flattened out with enemas and a low diet a tumor was felt in the region of the cecum, which had not been found before, and he became eager for operation, which was done at the Elliot Hospital April 11, Dr. Chase assisting. There were no adhesions, but the cecum was greatly thickened and strongly suggested a carcinoma with enlarged mesenteric lymph nodes. The cecum, terminal portion of the ileum and appendix were removed in one mass, with as much of the enlarged lymphatics as possible, and anastomosis was made with a large-sized Murphy button. A rectal tube was guided well up into the descending colon to prevent distention and removed after 48 hours. His convalescence was uneventful; the button came away twelve days after the operation and he was discharged in good condition.

The specimen was taken to Dr. S. B. Wolbach, whose report follows:

"Specimen consists of cecum, appendix and portion of the ileum. At the upper border of the specimen, on the posterior wall, is a small polypus 5 cm. in diameter. At the constriction ring are a few shallow ulcers, and the mucous membrane below is ragged in appearance. In the adherent fat are a number of enlarged lymph nodes, the maximum size being 1.5 x 1 cm. These, on section, have a remarkably uniform consistency and appearance; firm, succulent, finely granular, without necrosis.

"The appendix externally appears to be normal, not opened. The ileum itself, while not opened, is markedly edematous. The appearance is that of an invading tumor of the cecum, differing, however, from carcinoma in the unusual laxity and translucency of the new tissue, and the absence of the marked induration of the invaded fat. Frozen section of a lymph node shows it to be filled with miliary tubercles, with practically no caseation in any of them, and none of the lymph nodes show microscopic caseation. Frozen section of the thickened cecal wall shows it to consist of loose fibrous tissue with many foci of lymphoid and plasma cells. In the portion selected no tuberculosis was found. Gross diagnosis: Hyperplastic tuberculosis of the cecum."

Abdominal pain, nausea and vomiting are the recurring complaints of patients with partial obstruction as they are of many other surgical conditions in the abdomen.

In the history the use of active cathartics for a long period, especially when the constant result is a fluid or porridge-like stool, is suggestive.

Palpation of the abdomen has given valuable assistance in the diagnosis of these cases.

In the first and second of these, and in the two other cases referred to, the large bowel could be felt when in spasm and lost as it relaxed. In the third and fourth cases there was localized tenderness, and in the last a definite tumor.

A history of previous operations, without relief of symptoms, does not justify a diagnosis of adhesions.



Adhesions following a normal convalescence after clean laparotomy rarely produce symptoms. Surgical experience shows that abdominal symptoms following operation are more often the same as those which preceded and caused the patient to consent to it. They exist, not because, but in spite of an operation which failed to remove the cause, though it may have properly and successfully dealt with some other important pathology.

X-ray examination has given uncertain results.

The first of these cases, enterolith with contractions in the ileum, three times was x-ray negative.

The second, ileal obstruction with dilatation, was x-ray misleading.

The third, ileal angulation, was x-ray negative because of inability to retain the opaque material.

The fourth, double adenocarcinoma of colon, was x-ray misleading as reported—error in interpretation.

The fifth, obstruction in cecum, was x-ray correct.

A negative report certainly does not rule out the possibility of partial obstruction.

### Some Observations on Private Duty Nursing by a General Practitioner\*

BY ARTHUR N. BROUGHTON, M.D., JAMAICA PLAIN

#### *Madam Chairman and Ladies:*

I consider it a very great honor to be asked to speak to a gathering like this. Far greater, however, than the honor implied is the responsibility which I feel, and I wish with all my heart I were gifted enough to present fairly, but with absolute precision, the situation in the community in regard to private duty nurses as it is.

In inviting me to speak, it was suggested that many nurses had felt a great lack of coöperation on the part of the doctors in the community; that the private duty nurse was fast disappearing. It was considered wise by those having the matter under consideration to get the opinions from various doctors, both friends and enemies, to see what, if anything, was wrong. I certainly am utterly unwilling to appear before you as anything but a sincere, tried and true friend of the nursing profession, and a defender as well—of the profession as a whole and of all individual nurses who will play the game, that is, take their place as one of the team in applying the best there is in the two professions to the problem of the sick as we get them.

Nothing that I say must be taken out of its setting. What I attempt to point out is done with the utmost friendliness, without rancor or personal animus. It represents, as accurately as I know how, the opinion of very many of the best doctors in the community with whom I have talked repeatedly on the subject under consideration.

In spite of superficial comment that the general practitioner is departing from the community, you have only to look at Brookline, Newton, Dedham, Chestnut Hill, Reading, Winchester, Milton, Hingham, Cambridge, Allston

and, in fact, all of the outlying districts of Greater Boston, to realize that in each of these places there are several men of the highest professional standing—keen, well-schooled, modern physicians—who are engaged in general work. Throughout the State the condition is even more notably so.

You may well ask what gives me the right to talk on so broad a subject in the presence of so many of the best of your profession, with a far more intimate experience with the actual problem than most doctors could dream of having.

Having trained at one of the large hospitals as a surgical house officer, I chose to go directly into general practice, and had several years as a dispensary physician; have been assistant surgeon at two Grade A hospitals; had ten years' service in an Infant Hospital; went back a year to the Surgical Out-Patient Department of my own hospital during the war; have had intimate knowledge of industrial nursing as carried on under the Workman's Compensation Act; and have had for close friends, through many years, the superintendents of training schools in several of our best hospitals in the city. So that it is fair to assume that I am fairly conversant with the problem.

Some time ago one of the foremost orthopedic surgeons in the city, in discussing with me whether he was satisfied with a fracture that he had just put up, quoted Oliver Wendell Holmes, his teacher, as telling him that "A man is lost as a surgeon or physician who is unwilling to face the absolute facts of every case with which he is dealing"; or, to quote the vernacular, "who tries to fool himself into thinking a thing is right which is not." And that is what I want to do here, i.e., face the facts with you.

Of course it is apparent that one of the most certain signs of incipient old age is to begin

\*Read at the Private Duty Nurses' Section, at the Mid-Winter Meeting of the Massachusetts State Nurses' Association, Feb. 16, 1924, at Boston.

ranting because things are not as they used to be. At the same time, a thinking person with any perspective at all cannot fail to realize that not all of the positive statements or theories advanced by those concerned with the education of nurses are permanent. For example, in other medical fields, consider the way the theories of infant feeding have swung 'round the circle from the time Dr. Rotch first elaborated the method of percentage feeding, going through all the changes of high fats, low fats, split proteids, etc., etc., until now the accepted method by many of the best of our pediatricists is essentially what our grandmothers used many years ago, only done more accurately, that is, dilution of whole milk with water and slightly sweetened.

Or again, some of you must have seen the impressive array of nurses at the State House, some years ago, giving their enthusiastic support to Health Insurance as the solution of much of the difficulty of dealing with charity cases; and yet how completely that has fallen into disrepute!

Again, it is no secret that some at least of the committee, which I suppose is the most powerful in the country having to do with medical education, are frankly aware that the theory of full-time professorship is by no means proven sound.

Now, let us consider, if you please, what the situation was a few years ago as to private nursing, and then go on to take up other phases of it. I know of a man who asked his young son what was the first thing he would do with \$100 if he were to give it to him. He instantly replied, "Count it." With that spirit I want to review the past history of nursing as I have seen it, being perfectly well aware that no single illustration is conclusive evidence for or against any given situation.

In the winter of 1918, as I remember it, with the second epidemic of influenza, I was called by an obstetrician from Boston to ask if I would be willing to see a patient of his, momentarily expecting to be confined, something like a mile and a half from my office, where it was an utter impossibility for him to go because of the snow. This was a good family, the father a professor in one of the largest institutions of learning about Boston, living in a perfectly decent home. The mother was at term, had a high temperature, double pneumonia, raising bloody sputum, and was ghastly sick. The husband was taking care of her with a temperature of 101 himself, coughing incessantly, and there was a small child with double middle ears which had to be opened then and there. It was utterly impossible to get any maid to go in there, and there was no family or friends who could help out. I got two nurses whom I stole from other cases which were less sick, who took the case. In the middle of the second night, with a

furios snowstorm raging, I tramped down there through the snow, carrying my bag, to find the woman in active labor. I had called the day nurse, who got up in this terrific weather, walked a mile and a half (with one white stocking and one black), and the three of us delivered the woman. Two or three days later she died—as was inevitable.

Those nurses did the entire thing,—took care of the mother, the child and the husband, all the housekeeping, and with not the slightest complaint, necessarily exposing themselves to the disease, and doing as heroic a piece of work as one could picture.

I could give very many more examples of exactly the same type of heroism and faithful work on the part of so many nurses in the past twenty-five years that I have practiced. This was an emergency, I appreciate—and not under the ordinary conditions. Contrast with that story the last two or three years! One of the very best registries in the city, that I had used for a number of years, told me point blank that it was not any use for me to ask, as practically none of the nurses registered there would take night duty in a private house.

Within a few months I have had at one of our good hospitals in the city a case of pernicious anemia. She had two transfusions and at the end of six weeks was just getting up for a short time each day. While she was still at the hospital her aged sister at home fell and broke her arm. At the sixth week her husband was brought to the hospital with an acute pancreatitis. He was operated, but without avail, and died the next day. Under the circumstances all the doctors concerned with the case felt that the only possible thing to do for the poor widow was to allow her to return to her home to be amongst her people and friends in her great sadness. She was a woman of means and had had a night and day special throughout the entire six weeks. On asking the day special if she would be willing to go home with her, under the circumstances, for twelve-hour duty she declined, saying that she preferred to work in the hospital.

One evening, two months ago, I was called to see a woman of eighty-four years of age who had broken her left hip,—again, a woman of some means. It happened that she was at the time alone in the house with her widowed daughter who was blind. I called up a graduate of one of our good hospitals, and after taking pains to find that she had no engagements ahead, put the situation to her and asked her if she would help us out. After consulting with some of the other nurses in the boarding-house she declined to go.

Within a short time a delightful old gentleman, who had formerly been one of the officers on board *The Monitor* in the Civil War, had a stroke late at night. It happened that there

was no maid in the family, and no one to care for him but his aged wife. Several graduates, not otherwise engaged, after hearing the circumstances, declined to go to the case.

Repeatedly in the past year I have had nurses decline to go to the private home for no other reason than that they preferred to act as specials in the hospitals.

Is it fair to consider these mere isolated, chance examples, matters of personal equation, or have they any significance in showing the trend of opinion in the nursing profession at present?

What is, then, the present situation really as regards private duty nursing? Many of the doctors with whom I have spoken, have recognized the great scarcity of thoroughly well-trained private duty nurses, who are willing to take cases in the homes. It is not so hard obviously to get nurses who will act as specials, particularly in some of our best private hospitals. Now, why is this so? There are many complex reasons which we all thoroughly understand. The war caused a complete disarrangement of all economic conditions, with enormous increase in prices and costs, and a very great shortage in available nurses. Then came the reaction after the war. I am frank to say I can readily understand how nothing would seem like such a complete let-down as the return to private duty in a home after having been thrilled beyond words by the wonderful opportunity and exciting, stimulating, price-less experiences that so many of you had. Hand in hand with this reaction came the flood tide towards the agencies of District, Public Health, Red Cross, and Industrial nursing, some of which, at least, have unquestionably taken on the character of a large business. Again, the influence on medical and nursing education of some of the vast Foundations, with all the emphasis on research as the end and aim of much of the teaching, has had a far-reaching effect throughout the country on our training schools.

I feel, as do most of the men with whom I have talked, that another large factor in the widespread disinclination to do private nursing has originated with those in charge of the training schools. To my knowledge within the last few months at some of the training schools in Greater Boston those teaching the probationers have stated, *e.g.*, that "the best nurses do not do private nursing, even as specials, but take administrative, teaching, or some kind of institutional positions." In one school the lecturer told the class that, in effect, all specials were profiteers in that they avoided their greater responsibility of entering the fields of public health, district, or similar nursing, because in those fields are the real places where the nurses can reach the poor and suffering classes who so greatly need them. And the superintendent of one of the largest training schools in

the country, and formerly at two of our very best and largest local hospitals, with a wide experience, thoroughly modern, having had intensive training at the Teachers' College in New York, told me that she was obliged to tell the Trustees of her hospital that such tremendous emphasis had been placed on research and the scientific consideration of the problems connected with each of the patients that she had no genuine clinical material from which to teach her classes,—one of the essential reasons for her resigning.

Now this is all a very complex situation. Adding to the complexity in this vicinity, in any event, is the geographical arrangement of our community. The administrator of one of the largest hospitals in New England stated, in talking of the nursing problems, that the reason the hospitals had needed so many nurses and that there was so much work, and that nurses were so hard to get, was because of the enormous growth of apartment houses throughout the community, forcing so many patients into hospitals. Undoubtedly that is true, but I am willing to state that there are enough cases throughout Greater Boston, not in apartments, who cannot and will not, and often ought not, go to a hospital, to keep three times as many nurses busy as are available. The same is true all over the State. These people of the middle and moderately well-to-do classes need your help really, almost more than the very poor or the very well-to-do. Both the latter classes are pretty well provided for. In 80 per cent. of these others there is neither opportunity to send them to a hospital nor the need.

Now how is the problem to be met? There is no question that twenty-four-hour duty is extraordinarily hard. I know perfectly well the enormous drudgery of continually being with one case, and have many times heard the argument that it is so much easier for the doctor because he is changing from case to case. The type of man of whom I spoke earlier, *i.e.*, the general practitioner, has variety in his work, but there is not one of them who does not work almost continuously 16 hours a day, Sundays and holidays not excepted.

One cannot help feeling that a very powerful attraction to the young graduate in the field of public nursing, whether District, Red Cross, or Public Health, lies in the fact that they have continuous work at a fair wage, with all their evenings, Sundays and holidays free. There can be no argument that this is a very great need in the community, but I am very sure that the cases in the private home are every bit as much in need of good nursing as in this other field.

The thing we all desire to effect is coöperation between doctor, nurse, and patient. It is inconceivable that there can be any very genuine coöperation unless all three of those con-

cerned are working for the same end, and the question has often been raised—I do not say necessarily fairly, but the question has been raised—whether the present-day nursing is really any longer a profession. If it is a profession it carries with it unavoidable obligations, of which private duty is one of the most important. A very large percentage of the doctors in the community carry a load all the time far, far beyond their strength, with scant returns. In passing, you will not forget that in New England the fees charged by 90 per cent. of the doctors in practice are exactly what they were ten years ago or more.

Now, how is this problem to be met? We have heard that the only solution is the cross-road hospital, that is, small hospitals throughout the community, away beyond the suburbs, extending out into the rural districts, with a group of competent well-trained specialists who can deal with the many problems of illness in that particular community. Is it not at once apparent that it would take a hundred years to establish any such facilities? Another solution suggested has been the establishment of group clinics throughout the community. There are many arguments in its favor, but it is only fair to remember that 75 to 80 per cent. of all the illness in the community presents no great problem as to diagnosis or treatment. In a very, very large part of the latter cases good nursing is almost more effective than medical supervision. As a solution of this problem, can it be suggested that they should all be sent to the hospital? Obviously, not half the sick people in any community could be housed in the hospitals available.

In the future, I believe there is bound to be a reaction against the present practice and teaching of this subject. It may very well be that we shall be compelled to have separate training schools for the several types of nurse,—institutional, teaching, industrial, district, public health; and also nurses for the specialties, obstetrics, communicable diseases, surgery, etc., etc.

I believe, however, that it is far more probable that the same reaction, already well advanced

in the education of our medical students, will occur in our training schools for nurses; that sound, wise, far-seeing teachers of nursing will recognize the lack of perspective in emphasizing institutional and special-group nursing to the exclusion of the eternally necessary private duty nurse. That such nurses are one whit less needed, or appreciated, or that in doing private nursing they are lowering standards, is an utterly intolerable assumption.

In conclusion, I wish to quote from perhaps the greatest general practitioner we have ever had in this country,—Sir William Osler. In talking to a graduating class of the Johns Hopkins training school for nurses, he said:

"On the stepping-stones of our dead selves we rise to higher things, and in the inner life the serene heights are reached only when we die unto those selfish habits and feelings which absorb so much of our lives. To each one of us at some time, I suppose, has come the blessed impulse to break away from all such ties and follow cherished ideals. Too often it is but a flash of youth, which darkens down with the growing years. Though the dream may never be realized, the impulse will not have been wholly in vain if it enables us to look with sympathy upon the more successful efforts of others. In institutions the corroding effect of routine can be withstood only by maintaining high ideals of work; but these become the sounding brass and tinkling cymbals without corresponding sound practice. In some of us the ceaseless panorama of suffering tends to dull that fine edge of sympathy with which we started. A great corporation cannot have a very fervent charity; the very conditions of its existence limit the exercise. Against this benumbing influence, we physicians and nurses, the immediate agents of the Trust, have but one enduring corrective—the practice towards patients of the Golden Rule of Humanity as announced by Confucius: 'What you do not like when done to yourself, do not do to others,'—so familiar to us in its positive form as the great Christian counsel of perfection, in which alone are embraced both the law and the prophets."

### Ovarian Cysts Complicating Pregnancy, with Report of Unusually Large Complicating Cyst

BY CHARLES J. KICKHAM, M.D., F.A.C.S., BOSTON

OVARIAN cysts complicating pregnancy are not uncommon and while usually giving little trouble in diagnosis or affecting the course of pregnancy or delivery, every so often they are of serious import and, as they are a pathological condition, are worthy of special attention.

The exact exciting cause of ovarian cysts is in doubt and the varieties from a pathological standpoint many, but in brief, to follow Graves,

we may divide them into two great classes,—the proliferative and the non-proliferative. In the latter class are the cystomas or simple cysts, which are single chambered, containing usually a clear serous fluid; this type arise from a pedicle, which allows the mass to float freely above pelvic brim; they may grow to enormous size but are benign in character. The proliferative type may vary in size from very small to size of



grapefruit, but rarely reach the large proportions of the simple cystomas. The latter class of cysts are called cystadenomas and are usually of many chambers, but sometimes contain only two or three, and on rare occasions gross examination reveals only one chamber, but closer study will show that originally they were multichambered; this variety are also called multilocular and we divide them again into two classes, viz., those that contain a mucoid material, or the pseudomucinous cystadenomas, and those that contain a serous fluid, or the serous cystadenoma. These latter classifications are important, for though all cystadenomas are suspicious in regard to malignancy, in contradistinction to the cystomas, which rarely are dangerous, the serous cystadenomas are usually malignant, while the pseudomucinous cystadenomas are more apt to be benign. Again, the pseudomucinous type seldom grow between the leaves of the broad ligament and thus are easier to remove.

In pregnancy the smaller cysts usually give little trouble in diagnosis, for the enlarged uterus can ordinarily be distinguished from the cystic mass; but with a large cyst filling the lower half or the entire abdomen, in a patient who assumes she is pregnant or where the probability of pregnancy is present, the differential diagnosis may prove difficult. With ovarian cysts it is common to find amenorrhea and the passive congestion of the pelvic organs may cause discoloration of the vagina and cervix, and also softening of the cervix; the fluid wave, which may be elicited in some cases, may simulate hydramnios. A large cyst may have very tense walls and it may be almost impossible to differentiate by palpation between a pregnant uterus and a large cyst. The over-distention may simulate twin pregnancy or an abnormally large baby, and the failure to hear the foetal heart is of little value, since this is absent in so many normal cases. X-ray should clear the diagnosis in a doubtful case, but this is not always so. Thus it can be seen, with an ovarian cyst of large size, which has grown slowly over a period of months and in a woman of the child-bearing age, the question of correct diagnosis may give considerable trouble. Again, we may find a large ovarian cyst in conjunction with pregnancy, the patient being cognizant of her pregnancy by various subjective symptoms, but ignorant of the cystic condition. One of the most constant signs of ovarian cyst, coincident with pregnancy, which the writer has observed, is the great loss of weight which these patients show, which is not common with a normal pregnancy.

Men differ on the treatment of a cystic ovary of size sufficient to give symptoms. Some say, let them alone during pregnancy as they rarely give trouble and can be removed later; and while this is true in the vast majority of cases, we must bear in mind that operations during pregnancy are not as dangerous as we once sup-

posed. A small cyst may get twisted on its pedicle at any time and demand immediate operation, when the mediate condition of the patient makes this inadvisable or even dangerous and we find during the pregnant state that torsion of the pedicle seems more likely than in the non-pregnant. As pregnancy advances, the growing uterus may crowd the cyst into the pelvis and pressure set up an inflammatory condition in the cyst wall with necrosis or adherence to the uterus. Again, by its position the cyst may push the lower pole of the uterus out of normal position and thus interfere with delivery. During delivery, especially if much manipulation is required, the cyst may rupture and this is particularly serious in those of a malignant nature because of the liability of metastasis. The danger of infection from continuity of intestine, cyst and uterus must be also borne in mind. With the larger cyst, which rises out of the pelvis and fills the abdomen and is not discovered until late in pregnancy, it is well to let the cyst alone until the baby has been delivered, as these larger cysts rarely give mechanical interference with delivery. If a cyst is diagnosed in the first three months of pregnancy it is well not to operate unless necessary because of the greater danger of abortion at this time. This is probably due to the removal of the corpus luteum with the loss of the internal secretion, which seems to have an influence on the retention or discharge of early pregnancy. After this time operation seems to hold no more danger than is incident to any major operation. The writer is conservative about advising any operation for any purpose and, given a case of ovarian cyst complicating pregnancy, feels that, while operation should be considered in the light of the complications of the condition as enumerated above, no decision should be made in the case not giving acute symptoms, until every factor is considered and the conditions explained fully to the family. If operation is decided upon, it is done in the usual way, with the added caution not to handle the uterus if possible and to get the cyst out intact, since to spill the contents may spread a malignant process.

If no interference is the choice, the patient must be kept under close observation for signs of torsion of the pedicle and at the time of delivery the relation of the cyst to possible mechanical interference, as well as danger of rupture, be kept in mind.

The following case is reported because of its enormous size, in conjunction with a full-term pregnancy.

Mrs. M. Age 26. Para 2.

F. H.—Nothing important.

P. H.—Usual children's diseases, but otherwise well.

Marital.—One child 2 years ago. No miscarriages.

Menstrual Hist.—13 years; regular every 28 days; 3 napkins per day; 3 to 4 days duration.

P. I.—Patient seen when 7 months pregnant, according to calculations from last period of menstruation; felt foetal movements at about 5 months; patient says foetal movements are very strong; had nausea and vomiting during first three months, none since. Patient noticed she seemed to be extra large abdominally in comparison to her previous pregnancy, but thought that was due to excessive appetite. Patient also noticed that face had become thin, but she felt well and had no particular complaint.

Phys. Exam.—Tall woman of large bony framework; face looks a little thin but well nourished; eyes clear and react to light and distance; mouth and tongue in good condition; slight prominence of thyroid; heart sound clear and regular; lungs clear throughout; abdomen markedly distended from pubes to ensiform, and skin tense and pale; palpation showed marked tenseness all over abdomen, but no definite uterine wall made out or any foetal movements; careful auscultation failed to reveal foetal heart; fluid wave with a question; change of position did not seem to influence any of the examination; vaginal examination showed cervix congested and soft, with slight eversion of external cervical lips from old laceration. No ballottement made out, but question of foetal head palpated in lower uterine segment. X-ray examination refused.

Diagnosis at this time made of ovarian cyst, and because of the subjective symptoms of the mother that she was pregnant, it was decided to watch case along. Blood pressure readings and urine analysis for remainder of pre-natal period normal, and mother's general health continued fairly good, with no special complaint.

Labor.—Patient went into labor and delivered herself spontaneously in four hours of breech presentation; baby weighed 8½ pounds and was normal in every respect. Following labor and delivery of placenta abdomen did not diminish perceptibly in size, but definite cyst formation could be made out and fluid wave very marked. Post-partum convalescence free from all disturbance and patient advised to return home and in six or seven weeks return for operation. Patient refused to wait and insisted on

immediate operation, which was done on 18th day post-partum.

Operation.—Ether and long mid-line incision made; peritoneal cavity opened and large cyst with thin walls arising from pedicle on left, filling whole of abdominal cavity and non-adherent, found. After walling off, trocar inserted into cyst and fluid drained into pails; after emptying cyst to very small size, remainder of tumor delivered through abdominal wound and cyst pedicle tied off and cyst removed. Appendix exposed and removed as routine. Rest of pelvic organs normal, and not disturbed. All bleeding controlled and peritoneum and abdominal wall closed in layers, and patient returned to bed in good condition and good ether recovery. Patient had uninterrupted post-operative convalescence and was discharged in good condition on the 14th day.

Pathological Report.—Showed cystoma of ovary, benign in character. Amount of fluid evacuated from cyst, 724 fluid ounces.

Comment.—In this case the pregnant uterus apparently lay behind the cyst, and thus could not be made out by abdominal palpation and the mother's perception of foetal life had to be taken at face value as to the pregnancy. X-ray would have probably cleared up the diagnosis but was refused. The ease with which the patient delivered herself of a large baby, with breech presentation, speaks well for the size of her pelvis, and for the strength of the uterine contractions; showing that in this case the large mass did not interfere mechanically in any way. While I feel it dangerous to do any major operation so soon after delivery, in this case no bad effects were observed. This is the third case which the writer has seen where a very large cystoma and well-advanced pregnancy were coincident.

#### WISHES CULTISTS COULD SEE PASTEUR FILM

Dr. C. C. Williamson, of the Rockefeller Foundation, in writing of the motion picture "Pasteur," which details the life of the great bacteriologist, says:

"I recently had the privilege, together with several other members of the staff of the Rockefeller Foundation, of seeing the American Motion Picture Corporation's film portraying the life of Pasteur.

"I was somewhat familiar with the life and work of the great scientist, but this picture left on my mind a much more definite and vivid impression of his personality and his contribution to modern bacteriology than I could possibly have gotten from the biographies. At the time I saw the film, and many times since, I have wished that every cultist who flouts the scientific basis of medicine and every person who, through misdirected and excessive sentimentalism, condemns the use of animals in the study and treatment of human disease, could see this picture.—American Motion Picture Corporation.

#### EXTERMINATION OF BOVINE TUBERCULOSIS

In New York State more than 1000 herds of cattle have qualified under the accredited-herd plan for the extermination of bovine tuberculosis, and the number of heads under supervision is now close to 400,000. The farmers have come to realize that it means a broader market and a higher price for their stock, a better price for their milk, and—perhaps most important of all—that it is an assurance of the health of their own families as well as of their most valuable stock.—Bulletin of the New York Tuberculosis Association.

#### PRESIDENT COOLIDGE IS AGAINST STATE AID, PATERNALISM AND OTHER FORMS OF FREAK LEGISLATION

He says:

"Efficiency of Federal operations is impaired as their scope is unduly enlarged, and efficiency of the State governments is impaired as they relinquish and turn over to the Federal Government responsibilities which are rightfully theirs."—*Illinois Medical Journal*.

**Case Records**  
of the  
**Massachusetts General Hospital**

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN  
WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY

RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.

F. M. PAINTER, ASSISTANT EDITOR

CASE 10161

A German schoolboy of fourteen entered August 28.

F. H. His father and mother were dead, of unknown causes. Four brothers were living and well.

P. H. He remembered no illness before the present one. He had had a few attacks of sore throat, not severe. He said he had always had clubbed fingers and toes.

P. I. On the 13th of February, when feeling perfectly well, he was seized with sudden sharp pain in the region of the heart. He had difficulty in getting his breath and was much worried by the forcible beating of his heart. After three weeks in bed the symptoms disappeared. He found, however, that any violent exertion caused dyspnea. Three weeks before admission he had another attack of pain and palpitation, and had been in bed ever since. The pain had gradually diminished, but there remained enough, together with cough which had developed during the past two weeks, to disturb his sleep very much.

P. E. Well nourished. Skin and mucous membranes pale, slightly cyanotic. Apex impulse of the heart diffuse, forcible, both sides of the chest heaving with the impulse, the left more than the right. Impulse felt in the sixth space 12 cm. from midsternum,  $4\frac{1}{2}$  cm. outside the nipple line in the anterior axillary line, corresponding with the left border of dullness. Right border of dullness 5 cm. to the right. No valvular sounds heard at the apex.  $P_2$  not accentuated, the only sound heard anywhere. Presystolic thrill at the apex and a fainter systolic thrill at the base. Entire cardiac cycle was everywhere occupied by loud murmurs. At the apex a rough presystolic and a blowing diastolic were most prominent, both transmitted to the axilla and the back. A systolic murmur louder at the left sternal margin. At the base the diastolic became louder, and a systolic different in character from that heard at the apex

was prominent. The presystolic could be made out at the base. Action regular. Pulses Corrigan, dirotic. Artery walls not felt. A thrill and a systolic murmur could be made out in the neck. Pistol shot in the groin. Capillary pulse in finger and toe nails, which were rounded. The veins of the neck filled from below. Lungs. A few moist râles at both bases behind. Abdomen. Slight shifting dullness in the flanks. Liver dullness fifth space to  $1\frac{1}{2}$  cm. below the costal margin. Edge not felt. Spleen. Hard round edge felt  $3\frac{1}{2}$  cm. below the costal margin. Genitals and reflexes normal. Extremities. Fingers clubbed. Right pupil greater than left; reactions normal.

T.  $96.2^{\circ}$ - $99.9^{\circ}$ . P. 106-140. R. 41-26. Urine.  $\bar{3}$  25-58, sp. gr. 1.019-1.026, the slightest possible trace of albumin at one of two examinations. Blood. Hgb. 75 per cent., leucocytes 11,600, smear normal.

The patient was put upon digipuratum and purgation. The pulse came down. There was good diuresis. By September 4 the symptoms were gone, and September 8 he was considered ready for discharge.

September 10 he had indefinite pain in the right shoulder. That evening he had rapid respirations, dyspnea, and cyanotic lips. There were a few râles at both bases. The liver edge was felt, tender, at the umbilicus. The dyspnea increased somewhat, and the pulse grew rapid and feeble. September 10, without other signs, he died.

DISCUSSION

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

"Clubbed fingers and toes" is of course the most important fact in the past history.

This is the history of a presumably congenital or early rheumatic heart trouble in a boy of fourteen. The fact, if it is true, that he has always had clubbed fingers and toes of course makes it more like a congenital affair. But if it was congenital and enough of a lesion to give clubbed fingers and toes it seems queer that he should have known nothing about it until six months before he came here.

NOTES ON THE PHYSICAL EXAMINATION

There was great enlargement of the heart to right and left, especially left. It doesn't mean much to say that the pulse was dirotic, because pretty much every Corrigan pulse has some dirotism to it. There is nothing in any of the later facts to help us.

On the 8th he was considered ready for discharge, though presumably all the physical signs were still there. On the 10th the liver edge was felt. It was not felt before. The dullness was much higher up. Something has hit him. Was there any rise in temperature at the end?

MISS PAINTER: No; the highest temperature was on the day of entrance. It was 99.6° on the day of death.

DR. CABOT: So it was essentially a normal temperature throughout.

#### DIFFERENTIAL DIAGNOSIS

The action of the heart, the murmurs, thrills, and size, sound more like a rheumatic than like a congenital heart, and my impression on the whole is that. The lesions, if they are of that type, should be on the aortic and mitral both, very possibly on the tricuspid also. We have no means of distinguishing murmurs produced there from those produced elsewhere. And the lesions, if rheumatic, of course are stenoses.

The pericardium always comes to our minds as a possibility. He perfectly well may have an adherent pericardium, and so far as I know that could produce all these murmurs. I have never seen a murmur that an adherent pericardium cannot produce, but I do not know that I have ever seen quite so many as this.

The lack of temperature and leucocytosis inclines us against any acute endocarditis or acute pericarditis, though the way that he suddenly went to the bad September 10 makes us think of an acute infection in and around the heart, and it is perfectly conceivable that he had it.

A big spleen in a case like this usually means infarct, and not simply passive congestion. But the only spleens I have actually recognized as infarcts were those which grew rapidly while we watched them in the course of observation in the hospital, and this is, as far as we know, not the case here.

On the whole then I am against congenital heart disease, though I cannot exclude it, and for a mitral and aortic stenosis with or without adherent pericardium. The evidence seems on the whole against any acute endocarditis or pericarditis.

#### CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Infectious endocarditis (vegetative) with aortic and mitral stenosis and regurgitation. Intracardiac thrombus?

#### DR. RICHARD C. CABOT'S DIAGNOSIS

Chronic endocarditis, aortic and mitral, with stenosis.

Adherent pericardium?  
Splenic infarct?

#### ANATOMICAL DIAGNOSIS

##### 1. Primary fatal lesions

Chronic and acute ulcerative endocarditis of the aortic valve.  
Septicemia, streptococcus.

##### 2. Secondary or terminal lesions

Slight chronic pericarditis.  
Hypertrophy and dilatation of the heart.  
Infarcts of the spleen and kidneys.  
Chronic passive congestion, general.  
Hydropericardium.  
Hydrothorax, right.  
Ascites.

##### 3. Historical landmarks

Chronic pleuritis.  
Slightly defective closure of the foramen ovale.  
Hyperplasia of the spleen.

DR. RICHARDSON: The peritoneal cavity was about one-third full of clear straw-colored fluid, ascites. The liver was 9 cm. below the costal margin and 12 cm. below the ensiform cartilage in the median line,—pretty well down all along.

The right pleural cavity contained 300 cubic centimeters of straw-colored fluid, and there was a small amount on the left. The lungs presented the picture of chronic passive congestion.

The pericardium contained about 100 cubic centimeters of clear straw-colored fluid, and there was a broad band of old adhesions extending between the two layers in the region of the left ventricle. The heart weighed 360 grams—enlarged. There was a good myocardium, but the cavities were dilated. The tricuspid, mitral, and pulmonary valves were negative. The aortic cusps showed considerable disintegration and the remaining portions were fibrous and in places gritty; that is, a little calcareous degeneration, and superimposed on this a little acute endocarditis.

Cultures from the spleen yielded a growth of streptococcus. The spleen weighed 400 grams, was soft and hyperplastic, and contained a very large infarct. It was in the spleen culture we found the streptococcus. It was an atypical streptococcus and probably of the viridans group.

The kidneys weighed 223 grams and showed infarcts. The liver showed passive congestion.



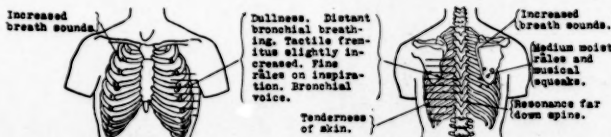
CASE 10162

An Irish-American housewife of twenty-seven entered September 23.

F. H. Good.

P. H. She did not recall the diseases of childhood. Since childhood she had had "bronchitis." She had "childbed" fever at the delivery of the first of her three children. Four years ago she had influenza, three years ago pneumonia and kidney trouble at a Boston hospital. Her bowels were always constipated and moved only once in five or six days without catharsis. For several years she had urinated once at night. There was some burning with micturition and some retention at times. For the past summer she had had edema during the day. Last summer she weighed 168 pounds, her best weight. Her present weight was 150.

P. I. Two nights ago she awakened with intense sharp stabbing pain in the side of the left chest, shoulder and loin, radiating down the left leg. The pain made her cry out and persisted throughout the night, with some fever. In the morning she had severe chills for three hours. A doctor gave her a hypodermic and some tablets. The second night she vomited, was unable to sleep, and perspired rather freely. Lime water was given to relieve the nausea. Since the onset she had taken practically no food. The morning of admission she took a little milk which she did not vomit. The night before admission she took salts and the morning of admission had a loose movement. Since the onset she had noticed increase in the respiratory rate and great increase of the pain on deep breathing. The pain was somewhat less severe but still intense.

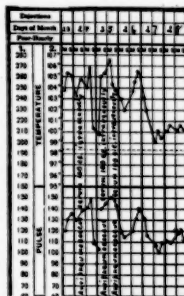


P. E. Well nourished, moderately toxic, lying propped up with rapid respiration and expiratory grunt. Occasional slight cough with reddish sputum. Face flushed. Skin hot and slightly iteric. Left ear drum scarred. Many carious teeth. Slight pyorrhea. Thyroid slightly prominent, soft. Breasts full. Milk easily expressed. Left slightly tender. Chest signs as shown in the diagram. Heart and abdomen not remarkable. Extremities. Slight edema of the ankles. Pupils very small. No reactions obtained. Reflexes not recorded.

T. and P. as shown in the chart. R. 14-40. Urine. 3 85-33, sp. gr. 1.007-1.014, cloudy at one of five examinations, the very slightest possible

trace to a slight trace of albumin at four, leucocytes at five, red blood corpuscles at the first. Renal function 30 per cent. Blood. Hgb. 65 per cent., leucocytes 22,000-5,000, polynuclears 91 per cent. Blood culture. No growth. Sputum. Sticky at both of two examinations, rusty at the first, blood at both. Pneumococcus Type I. Wassermann negative. Non-protein nitrogen 40.2 mgm. X-ray. See illustration.

Orders. September 23. Bed with head rest. Soft solid diet. Force fluids. Pneumonia precautions. Pump breasts and apply tight binder. Morphia gr. 1/6 s.c. every three hours p. r. n. for pain. September 24. Codein gr. 1/2 by mouth. Soapsuds enema. Type I pneu-



mococcus serum intravenously 100 c.c., with proper preliminary tests. Aspirin gr. x p. r. n. for headache. Ice bag to head p. r. n. September 25. Caffein sodium salicylate gr. v s.c., repeat once if necessary for precordial pain. Morphia gr. 1/6. Oxygen for two or three minutes p. r. n. for cyanosis. September 26-October 3.

Morphia gr. 1/6-1/8 every three hours p. r. n. to once a day. September 26. Caffein sodium salicylate gr. v s.c., repeat once if necessary. September 30. Zinc oxid wash\* sopped on for itching p. r. n. Veronal gr. x. Adrenalin 1/1000 solution minims vi s.c. October 1. Adrenalin 1/1000 solution minims viii s.c. every three hours p. r. n. for itching. October 2-3. Adrenalin minims viii. October 4. Sterile water s.c. in place of adrenalin. Sodium bromid, nux vomica and gentian compound\*\* 3 i t.i.d. before meals.

\*Zinc oxid 3 il, calomel gr. i, phenol gr. ss, lime water to make 3 viii.

\*\*Sodium bromid 3 ss, tincture of nux vomica 3 il, tincture of gentian compound 3 i, water to make 3 iv.

Aspirin gr. x 4 i.d. October 6, Aspirin gr. xv and gr. x t. i. d.

September 24 100 c.c. of Type I pneumococcus serum was given intravenously. Six hours later the patient was sleeping quietly and breathing easily. The drop in temperature and pulse are shown on the chart. She was free from pain and remarked, "How wonderful it feels to be well!"

September 26 she had a good deal of pain in the left lower chest and the pulse was poor. She seemed better however. September 28 there were many sudamina over the skin. There was pain in the left arm, possibly due to a small extravasation serum when given intravenously.

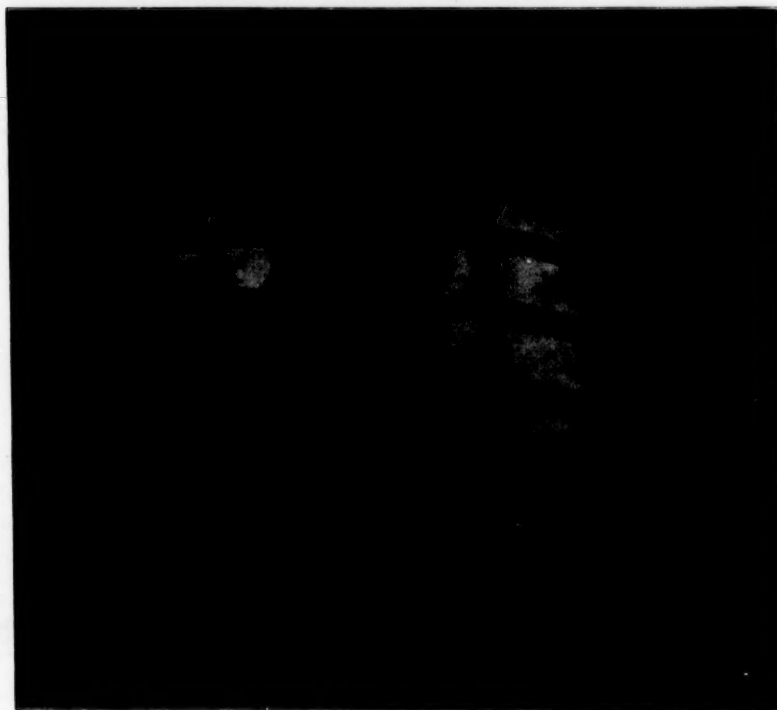
aching of the jaws. Two days later she was feeling very well. October 12 considerable epigastric discomfort developed. She now gave a history of the same discomfort and pain after meals before the onset of the illness. Soda and magnesium oxid did not give much relief. October 15 she was discharged relieved.

#### DISCUSSION

BY DR. MAURICE FREMONT-SMITH

#### NOTES ON THE RECORD

This is a rather unusual combination, nephritis being uncommon secondary to pneumonia.



Dullness in left base obscuring the outlines of the apex of the heart and diaphragm, rising higher in the axillary line. A rather indefinite upper border, suggesting the presence of a considerable amount of fluid in the left pleural space. There may also be involvement of the lung.

This pain in the arm was the only complaint during the next two days. September 30 there was a general urticaria with considerable itching which was relieved temporarily by adrenalin. It continued however to be distressing. October 3 she complained of muscle pains and

It is a question whether she did not have the usual irritation of the kidney with an acute infection.

It is of some interest to know what this edema is caused by, in the light of the statement that she had had kidney trouble. We have seen noth-

ing to make us feel that it was due to the heart. She may have had varicose veins.

Sharp stabbing pain in the side of the chest, later followed by chills, suggests the onset of lobar pneumonia. It is interesting that in this account there is no mention made of a cough at this time. It does happen that a lobar pneumonia will come on and cough be very slight, perhaps even absent at the onset.

The radiation of the pain, if the history is correct, is extremely interesting. Of course we know that the pain in pneumonia may be abdominal, may frequently simulate an appendicitis. But that the pain should radiate down the left leg is very unusual.

Vomiting as an initial symptom of pneumonia is rather more frequent than we are accustomed to believe.

#### NOTES ON THE PHYSICAL EXAMINATION

The picture is that of lobar pneumonia. The jaundice is not infrequent and is, I believe, without significance as to prognosis.

The ear drums were examined, the patient being pretty sick, because of realization of the fact that an otitis media may exist in a toxic pneumonia without any complaint of pain by the patient.

The note that resonance is found well down the spine is of interest as indicating that comparatively little fluid is present in the pleural cavity. There is sure to be some fluid present. One of the best signs of fluid is dullness over the lower spine and the presence of Grocco's sign.

The patient had probably had morphia. Otherwise the possibility of tabes with myopic pupils would have to be considered.

There is nothing in the urine which would indicate a chronic nephritis, nothing more than would be expected in the presence of acute infection. The renal function is not much diminished.

Dr. Merrill, will you discuss the x-ray?

DR. MERRILL: There is probably little to be expected from the x-ray other than to show the location and extent of the lesion. I should judge from the plate that this was an incomplete examination, a plate taken hastily of a very sick woman, probably, as often happens, on her way from the Emergency Ward to the House, and not made in the usual upright position. These are plates taken with the patient lying on her back on the table, as such cases are taken, by a nurse; then the plates come along to us for interpretation.

The patient was obviously in either a nervous or a sick condition, could not hold her breath, and there is considerable haziness and confusion of detail. There is, however, a perfectly definite area of dullness in the left base which obscures the outline of the diaphragm, the apex

of the heart, and also the costophrenic angle. The diagnosis of fluid with a patient examined in this position is inaccurate as to the probable quantity of fluid present, because it does not demonstrate the typical fluid line seen when the patient is erect. The absence of displacement of the heart from the pathological side is significant in suggesting that the amount of fluid present is not much. There was no fluoroscopy done. In these cases that generally cannot be done, as they come in at a time when the roentgenologist himself cannot see them.

I think from what we see there is evidence of probable consolidation in the lung and of a certain amount of fluid in the pleural cavity. If this whole area of dullness were fluid I should expect the heart to be pushed from it somewhat. With such an area of dullness and no displacement of the heart probably there is pulmonary consolidation. The other side is negative.

DR. CABOT: Should you be able to say that there is pretty certainly some fluid, that that cannot be all pneumonia?

DR. MERRILL: It has not the characteristic outline of a lobar pneumonia without some fluid. It fades off gradually into the lung field. If it was a consolidation limited to that lower lobe alone, without any fluid, we should expect a better outlined area.

A PHYSICIAN: Could the homogeneous character of the shadow be due to blurring by motion?

DR. MERRILL: Part of it could. It is however a little too uniform I think to be wholly accounted for by that. Consolidation, in the lung, if it is a complete consolidation, will be a uniform shadow.

A PHYSICIAN: What do you mean by a characteristic level of fluid?

DR. MERRILL: I think I used the word "line." The characteristic line of fluid as we see it in a patient in the erect position, without the presence of pneumothorax or without any puncture having been made to introduce any air or disturb the pressure in the chest, is an oblique line rising from the centre higher toward the axillary line. Its height of course varies with the amount of fluid in the pleural cavity. When air is introduced or the pressure is disturbed the shadow assumes a horizontal level.

A PHYSICIAN: Is there a definite line of demarcation in fluid?

DR. MERRILL: Not a sharp line as we see in the presence of free fluid, but a pretty definite curved upper border to the area of dullness.

#### DIFFERENTIAL DIAGNOSIS

DR. FREMONT-SMITH: This patient came in on the third day of the disease, and by the third night the sputum had been typed and Group I pneumococcus found.

The question comes up whether or not pneumococcus serum Type I should be given to this case. It seems that if the serum is given within the first three days, that is before the fourth day, the serum is definitely of value. That has happened in given individual cases. The statistics while bearing it out do not do so as definitely. There is no doubt about it that in the individual case there is a very marked sudden change subsequent to the giving of the serum. Of course the dangers of giving the serum have to be taken into consideration. Marked anaphylaxis can occur by giving an intravenous of foreign protein without proper precautions.

The test for sensitiveness of the patient is done by injecting intradermally small quantities of serum, similarly to the Schick test; within an hour, if the patient is sensitive, there should appear an urticarial wheal. It is the custom at the Rockefeller to give a small desensitizing dose even when there is a negative skin reaction. Under these circumstances no serious protein reactions will occur.

There is very frequently a thermal reaction following the giving of the serum, coming on one-half hour to an hour afterward, in which the temperature will go very high, subsequently to drop lower than before. Later on, seven to ten or fourteen days afterwards, there are frequently symptoms of serum sickness—itching, temperature, joint pains—of which symptoms the most disagreeable is the itching. This is sometimes extremely distressing and as in this case is either partially or completely controlled by adrenalin.

I should like to ask Dr. Lord if he will add to this discussion.

DR. FREDERICK T. LORD: This case is one of a group of twenty-two cases that we have treated with Type I anti-pneumococcus serum within the first three days, with two deaths in the series, a mortality of nine per cent., the whole series being 118 cases. We have reserved as controls 49 cases, of which 11 died, a mortality of 22.4 per cent.; and we have also to contrast with this control series a series in which serum was given after the third day, 47 in number, with 14 deaths, a mortality of 29.8 per cent.

I may say that I do not think we can consider that such a small series can be regarded as in any way proving the value of the serum. It is altogether too small a series. But the impression which one gets in addition to the low mortality in the 22 treated cases before the third day is wholly favorable. I must confess that I do not think impressions should weigh very much in inquiries of this sort, but nevertheless they may be put in. The impression is gained from the improvement of the patient. The patient's mental condition is better, the cyanosis lessens, the temperature falls. It usually falls and does not again reach its former level, although the temperature terminates usually at the expected period. It does not seem to shorten

the course of the disease but to make it milder. The pulse also falls. In fact, it is my impression that if cases can be treated early the disease may be aborted. The consolidation extends very slowly,—more slowly than one would expect it to extend from experience with untreated cases, or it may cease actually to extend.

These are our statistics. There is other evidence which can be gathered in Boston concerning this serum which we are using. The Boston City Hospital had twelve cases reported by Locke treated within the first three days, with no deaths. The Peter Bent Brigham Hospital had thirteen cases also treated within the first three days, with two deaths. So that if we put together the Boston experience we have 47 cases with 4 deaths treated within the first three days, a mortality of 8.5 per cent. Again, I do not believe that 47 cases is enough, and I do not think, if the matter rested upon these statistics, that it could be regarded as established. But there is strong evidence in favor of this serum nevertheless. There is the evidence of 495 cases reported by Cole and gathered by him from the literature, with 52 deaths, a mortality of 10.5 per cent. And there is a control group which can be contrasted with this treated group, of 181 cases from the literature, with 52 deaths, a mortality of 28 per cent. These are all Type I.

But it must be acknowledged that there is an element of risk in this sort of contrast, when this treated group is compared with an antecedent group. That never is quite safe.

To my mind the best present evidence is the evidence from animal experimentation. It can be proved in the laboratory that this serum is both capable of prevention and of cure. That is, it prevents death from an otherwise fatal dose in an animal, and it will cure an animal of an otherwise fatal infection. The evidence in monkeys is still further important, and owing to the close relation of the monkey to man makes it more nearly applicable to the use of the serum in man. That evidence was obtained by Cecil and Blake, who treated five monkeys with Type I pneumococcus pneumonia with Type I serum. These monkeys received the minimal lethal dose or more. Now the minimal lethal intratracheal dose is .001 c.c., and these five treated monkeys received the minimal lethal dose and more, or much more, up to .3 c.c., and they all recovered; while 25 controls (not all direct controls, but nevertheless I think they can fairly be used as controls) showed that of five monkeys that received the minimal lethal dose (.001) all died; of eight that received more than this amount all died; and of twelve that received less than this minimal lethal dose all recovered.

If I might comment on the previous discussion, it seems to me that while this matter is still in the stage it is we ought to go along very cautiously, and I have felt that we ought to exclude from treatment not only those patients who give a positive skin test, but also those pa-



tients who give a history of asthma or hay fever or previous injections of serum. While it is to be considered that a skin test is reliable, yet I think there is some question, and I should like to hear what Dr. Rackemann thinks about that, —as to its capacity wholly to exclude sensitiveness.

The data which we have here and all other data, I may say, both experimental and from statistics from literature, indicate that the benefit from the serum is chiefly to be derived from serum given early in the course of the disease, and of course that is in accord with what we know of serum therapy in all the diseases in which we have a specific serum. The earlier it is used in the course of the disease the more effective it is likely to be, and it is well established for pneumococcus infections that there are substances formed in the course of the infection which neutralize the curative element in the serum. So if we are going to use this serum it is highly important that we should use it at the earliest possible moment.

DR. CABOT: Will you say a word about non-specific protein serum in pneumonia?

DR. LORD: It has seemed to me, not to confine it to pneumonia, that in general non-specific protein therapy has not got to the point where it can be regarded as of established value.

DR. CABOT: Would you ever give serum to a Type I case in which you had established the fact that the patient was not abnormally sensitive but you were not dead sure of the diagnosis? Would you sometimes take a chance, saying: "I may be wrong in my diagnosis, but I should rather have my serum in?"

DR. LORD: That matter has been very much discussed. I believe with those who take the stand that it is undesirable.

DR. CABOT: I meant all Type I cases.

DR. LORD: How are we going to know?

DR. CABOT: Don't you get a Type I sometimes when you are not absolutely sure that the patient has pneumonia?

DR. LORD: Type I doesn't occur in the normal mouth in over eight-tenths of one per cent. of cases. So that if we have Type I in the sputum and have pneumonia, then we are as nearly absolutely certain as possible.

DR. CABOT: Supposing you are sure of the organism, but your physical signs are not clear?

DR. LORD: I should say if you have a case in which the initial symptoms are wholly consistent with lobar pneumonia (and in that connection it may be said that the initial complex of symptoms alone is almost distinctive of lobar pneumonia) if you have appropriate symptoms, even without definite physical signs, and Type I in the sputum, then you are practically certain and ought to give it.

DR. FRANCIS M. RACKEMANN: The description of serum disease given here is typical except for the fact that it is rather uncommon to have both urticaria and joint pains. The two

types are usually quite independent of each other and it is characteristic to have at first urticaria and in a few days afterwards joint pains.

There is a practical point connected with this. The positive skin test which develops following the introduction of each dose of serum appears for the first time when the serum disease is over. In such a case as this; one would have expected that after the attack of urticaria on the seventh day the skin test would have become positive. But undoubtedly in this case the skin test, if it had been done, would still have been negative, which would have been strange, and it would have been in that connection somewhat gratifying to the investigator to find that an attack of joint pain supervened three days later. The persistently negative test means that the serum disease is not yet over.

About Dr. Lord's question as to how sure we can be that a negative skin test rules out hypersensitiveness, I feel that an intradermal skin test, using strong dilutions, one to ten, or perhaps undiluted serum, which would have been must rule out severe and acute sensitiveness. On the other hand there are no doubt cases of spontaneous hypersensitiveness to proteins in foods or other things which can be demonstrated clinically and yet which fail to give any positive skin test. Perhaps that same thing might apply here; and in any case we should use caution. But I think that my first statement is substantially correct as far as we know now.

DR. CABOT: That is, if you had a bad history but a well given skin test which was negative you would go ahead with the serum?

DR. RACKEMANN: I should, but I should go cautiously.

DR. CABOT: What does that mean—a small dose?

DR. RACKEMANN: Yes. With a bad history I should begin with quite a small dose and repeat the doses at twenty-minute intervals. Severe reactions come within ten or fifteen minutes. I certainly should begin subcutaneously, and I should try as small a dose as .1 c.c., then in twenty minutes 0.5 c.c., then perhaps 5.0 c.c. and give the first dose intravenously only after finding that these first injections gave no reaction. If 1.0 c.c. intravenously caused no trouble I would go ahead and give as much as I wanted.

A PHYSICIAN: Is that in cases where you get a positive skin reaction?

DR. RACKEMANN: In cases where there is a positive skin reaction I should begin with much smaller doses, one-tenth or even one-one-hundredth subcutaneously. There would be a tremendous reaction possibly, and we should await that and watch the patient. Then go over on the other arm, and if the first was 1/100, give 3/100, then on the leg 7/100, then 1/10, then 2/10, and so work up very gradually until it was after several hours and after many injections

tions that we gave anything intravenously at all.

There is a theoretical objection to treating these hypersensitive cases at all. The symptoms—be they acute shock or serum disease—are theoretically due to an interreaction between the serum which is introduced and the antibodies which are supposed to occur in the patient. The symptoms are the result of this interreaction, and the theoretical formation of some toxic product is the cause of the symptoms. The point is that in the presence of a reaction and of this interreaction between these two substances the serum with which we want to combat the pneumonia is used up by this serum reaction.

DR. LORD: I have been inclined to say, in fact I have said up to this moment, that I would not treat a case that was sensitive anyway.

DR. RACKEMANN: I should agree to that simply from that point of view,—that the serum itself might well be destroyed, and furthermore that we should be very definitely playing with fire and might get a bad reaction at any time. I know of only three reports of cases treated in this way. Dr. Mackenzie of New York did two, and Dr. Alexander at the Brigham did one, and all three cases did well. The doctors were glad they went ahead with the treatment, but they had to work pretty hard for something over twenty-four hours before they got the full dose in, and did so even then with a great deal of foreboding.

DR. CABOT: Would you hesitate to use this method with a patient who could not be moved to a hospital?

DR. LORD: No. I have done a number of private cases.

DR. CABOT: And unless there was some special indication you would always use the intravenous method?

DR. LORD: There is little ground for the belief that any other method would be successful.

DR. CABOT: Is there plenty of serum available?

DR. LORD: Yes, plenty.

DR. RACKEMANN: There is just one other comment about serum disease which might be made for the sake of completeness, and that is that during the disease itself there is evidence that the kidney function is disturbed. The patients are likely to have edema with outpouring of albumin and casts and diminished phthalein. That is simply during the height of the serum disease,—in all cases a temporary affair.

A PHYSICIAN: This patient had a slight rise of temperature which does not show in this chart.

DR. FREMONT-SMITH: There is a rapid method for the determination of type. Is that practicable?

DR. LORD: Yes, it is quite practicable. You have to have two to three teaspoonfuls of sputum. That can be done within a few minutes by the precipitation method.

I think there is one other thing it would be wise to speak of regarding sensitiveness, and that is that it may be very dangerous to give the serum after the lapse of eight or ten days from the last dose. If the patient had another pneumonia on top of the first, one would have to be very cautious about giving the serum again. Dr. Rackemann, I was speaking of the repetition of serum in a patient who has once had it, after eight or ten days. The skin test would then be positive if the patient was sensitive?

DR. RACKEMANN: The skin test would be positive. I do not think we can make any definite statement about it, but in all the cases we had it was positive after the disease ceased provided it was definite serum disease. A few had indefinite serum symptoms, and in those the skin test did not develop. But in most cases it does develop and lasts for varying periods of time. It may disappear in a few months or it may persist for years. There were a good many men in the laboratory who had had diphtheria as children and one who had had tetanus. We tested their skin and found that two or three of the men who had had serum fifteen or twenty years ago still gave a positive test. On the other hand several men had had serum and remembered serum disease a short time ago, a year or two years, and their tests were negative. So that man is not like the guinea-pig,—the tests may disappear. That applies to the acquired type and to the spontaneous type too. Hay fever may spontaneously disappear.

A PHYSICIAN: Do all patients who get serum acquire that sensitiveness even though they do not show indications of serum sickness?

DR. RACKEMANN: Not so far as we know. If there is no serum disease the test is usually absent. I say "usually" because I have seen one or two cases where in spite of the absence of the serum disease itself there was a positive test.

DR. YOUNG: Had these men who had had antitoxin had serum disease?

DR. RACKEMANN: Yes, the ones I had tested.

A PHYSICIAN: What is the usual dose intravenously?

DR. LORD: One hundred cubic centimeters.

#### CLINICAL DIAGNOSIS

Pneumonia, Type I.

#### LATER NOTE

Five months after admission the patient writes, "I have been feeling fairly well, except that on rainy days I do not feel so well. My arm has bothered me a lot since I left the hospital. I have gained thirty-three pounds. I have no cough and no itching of the skin. But I am troubled a great deal with gas and pain something like indigestion."

## CASE 10163

An American of seventy-three entered December 3 complaining of hematuria. The family history is not recorded. The patient's memory was not good, and it was difficult to obtain accurate information.

P. H. He had always been pretty well. He described some indefinite attacks of dizziness with occasional fainting or falling. These attacks began when he was about thirty, occurred at very irregular intervals, were transient, and so far as could be learned were not epileptiform. He had had none in recent years. Six years ago he fell in the street, fracturing his skull ("cracked temporal bone"). He was in a hospital for a week and had fronto-temporal pain, requiring narcotics at times for six months. His hearing had been failing for several years. Deafness was now rather marked.

P. I. The following history is not clear as to dates, and it was suspected that the symptoms were really of longer standing than he said. For five years he had had nycturia, which increased until at present it was three or four times a night. A year ago he had some burning micturition; none since. He had had four attacks of painless hematuria, none lasting more than two days, occurring ten months ago, five months, two months and three weeks ago. In two cases the bleeding stopped when he took tansy tea. The morning of admission he passed two very small clots. The force of the stream varied from time to time. It began falling off six or eight months ago. At this time frequency began. This had been inconvenient only during the past three months; at present it was every hour or two. For five months urgency had been an increasing symptom. For two months he had had some discomfort in the bladder region. For one or two months there had been delay in starting the stream, more recently a little dribbling before the stream finally started. Nothing was known of the residual except for a period of a month two months ago, when a physician failed to get in with a soft rubber catheter and was forced to use a metal one. The residual was possibly two or three ounces.

P. E. Well nourished. Hearing very poor, especially on the left. Teeth all gone. *Heart* normal except for occasional irregularity probably due to extrasystoles. *B.P.* 135/80-122/76-95/60-165. *Lungs and abdomen* normal. *Rectal examination* not satisfactory, as the patient complained a good deal and the sphincter was very spastic. Prostate seemed to be moderately and symmetrically enlarged, firm, and non-tender. A few external tabs.

Before operation *T.* 101.2°-97°, *P.* 116-70, *R.* 35-18; *urine* 3 36-109, sp. gr. 1.010-1.015, alkaline at one of three examinations, cloudy at all

three, the slightest possible trace of albumin at two, 20-35 leucocytes at two, 8-10 red blood corpuscles per high power field at the first, 50-75 at the second, 12-20 at the third. Residual at entrance 3 ii. *Renal function* 65 per cent. *Blood* before operation not recorded. *Non-protein nitrogen* December 5 38 mgm., January 5 39.6, January 27 45.9, February 4 38.1. *Wassermann* negative. *X-ray.* Considerable motion in the plate taken. Kidney outlines not visible. No shadows in the urinary tract which could be interpreted as stone. Spine showed slight hypertrophic changes.

December 6 cystoscopy was done. Immediately on inserting the cystoscope there was profuse bleeding which was persistent in spite of irrigation. By using a constant irrigation stream through the bladder it was possible to see bits of the bladder wall and the prostatic ring from time to time. It was impossible to make an exact diagnosis. It seemed most likely that there was an ulcerating bleeding middle lobe of the prostate. The patient was placed on constant drainage. He had a very uncomfortable day with the indwelling catheter. It was very difficult to make the catheter function because of blood clots. The night of December 7 it was removed. The next day he felt much more comfortable and the urine showed no gross blood, which was present on the previous day. December 12 another cystoscopy was done. A very poor view was again obtained on account of profuse bleeding which apparently came from the right side of the bladder just back from the prostate. In one fleeting view of the left side of the bladder and the left half of the prostatic ring no growth was seen in these regions. The patient had moderate hematuria for ten or twelve hours afterwards. He was then very comfortable except for frequency almost every hour day and night. December 17 a cystogram showed the shadow of the injected bladder to be round, with normal regularity of outline.

December 24 operation was done. The patient had obstinate distention after it, relieved only temporarily by pituitrin and enemata. In spite of it however he felt very comfortable. The drainage was fairly good. There was some leaking from the wound. By December 30 there was some redness around the lower angle of the wound and some discharge of pus. The three lower sutures were taken out and a rubber drain inserted. The temperature since the 28th had ranged from 100° to 102.4°. This drainage worked better. January 2, however, there was rather marked infection in the lower part of the wound. It was treated with dichloramin T and mercurochrome. In spite of all measures the distention could not be kept down all the time. The patient however seemed better during the next three days, and the distention was under fairly good control with benzoyl benzoate and flaxseed poultices. January 5 the patient

had some pain from irregular attacks of vesicle spasm. January 8 the temperature was down to 99°. The patient was comfortable and the wound was cleaning up. Next day the tube was taken out and the catheter inverted, but as it could not be adjusted to drain the tube was replaced in the afternoon. January 10 the catheter was again inserted. There was some drainage through it, but most of the urine came through the suprapubic wound, requiring frequent changes of dressing. January 13 the catheter was taken out. January 16 the patient was up about three hours. The wound was healing well. January 20 the abdomen became macerated. All adhesive was stripped off and the abdomen cleaned. The in-lying catheter was put in with good drainage. January 25 it was out of adjustment and was removed. The patient voided. Several hours later the suprapubic wound was dry. Next day the temperature was 103°, the pulse 130, the respirations 30. There was no evidence of involvement of the epididymis or the urethra. There were fine râles at the left base. Next day there were râles in both bases, with coarse consonant râles and a coarse friction rub near the right axilla. The temperature ranged from 99° to 104.4° with wide daily swings, the pulse from 99 to 129, the respirations 26 to 33. The pulse was of good quality. A catheter was inserted with a residual of two ounces of clear normal smelling urine. January 29 the patient had persistent hiccup, and was very weak and tired. There was still leaking from the wound. No urine was obtained upon catheterization. January 31 he was irrational. The mental condition slowly improved, and by February 14 was much better, and he was up in a chair. That day he tried to get out of bed and hit his head and shin. The wound was strapped over so that drainage was not so good. The next day the temperature was 102° and he was more irrational. That evening he took a sudden turn for the worse, had Cheyne-Stokes respiration, cold extremities, and a heart rate of thirty. Atropin and digifolin were tried. The pulse rose temporarily to 120, then dropped back to 25-30. Just after midnight he died.

## DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

This is a clean-cut story of trouble in the urinary tract, because hematuria at seventy-three always means not only trouble in the urinary tract but on the theory of chances very serious trouble. A large number of cases studied in various clinics show that at this age a painless hematuria such as he has had is malignant disease in considerably more than half the cases. So that we should make a diagnosis of probable cancer of the bladder on this story, and assume it was that until we proved it was not.

DR. CABOT: What about benign growths?

DR. YOUNG: At this age it is more likely to be carcinoma, although a papilloma can cause this story. But even though papilloma, one would be afraid at this age, because of the danger of malignant degeneration.

I do not know what we can call the fainting spells. They have not continued, and I do not think we can say that a man of sixty-five had arteriosclerotic change which went from thirty to sixty-five and did not bother him any more.

The only other thing in the present illness which would influence my diagnosis would be the relatively short story of difficult urination. At seventy-three prostatic symptoms on cross-questioning generally go back at least three or four years. But that is not necessarily so, and this whole thing may be a fairly rapidly developing prostatic enlargement.

There is a progressive falling in blood pressure which suggests the falling general condition while in the hospital.

Another thing in the physical examination that would tend to help us out is apparently normal kidneys. That is, a normal renal function and essentially normal blood nitrogen. So that, taken with the short period of time during which there has been difficulty, again makes us think that there has been very little if any back pressure. All this story makes me think it is more likely to be a bladder tumor than it is to be due to a prostate or any of the more unusual causes.

It is perfectly true of course that running into an ulcerated middle lobe with a cystoscope will start a hematuria. But it is also true that running into a friable carcinoma would do the same thing. So that I do not think it helps very much. In the face of profuse bleeding it is very foolish to say where it does come from unless one is dead sure, because a little blood coming from the northeast corner will look as though it came from the southwest corner if one happens to be looking at the southwest corner at the time.

There is no record of constant drainage after December 7, so we must assume that the delay was to get him into his normal condition as far as possible. Unless that is the answer I do not see any reason for delaying operation, because there is no reason from the story so far to think this is anything more than a bladder bleeding. We have negative x-rays, normal kidney function, and cystoscopy showing blood coming from the bladder, because it starts immediately on the insertion of the cystoscope, and no renal hematuria would start that way.

I think the only possible mistake in diagnosis I have ever seen in a question of hematuria was a profuse hematuria which allowed some blood to clot in the bladder and the clot was mistaken for a carcinoma. Operation a few days later showed an absolutely normal bladder. But that does not apply here, because cystoscopy brings



on the bleeding. So that the diagnosis I think most probable on the chances is carcinoma of the bladder.

**PATHOLOGICAL REPORT FOLLOWING CYSTOSCOPY  
DECEMBER 6**

A small string-like fragment from the bladder showing on microscopical examination papillary fringes of epithelial cells with vascular connective tissue stalks. The epithelium is not atypical and the histologic appearances do not suggest malignancy.

Papilloma.

H. F. HARTWELL.

**FURTHER DISCUSSION**

What I said I think applies here, that a papilloma can give all these symptoms, but at this age we are very suspicious that the base of that papilloma is malignant, and we treat it as such. So that I should not make a change in diagnosis except to say "carcinoma of the bladder from a papilloma."

**DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS**

Carcinoma of the bladder from papilloma.

**PRE-OPERATIVE DIAGNOSIS**

Cancer of bladder.

**OPERATION**

Gas and oxygen. A pedunculated tumor  $1\frac{1}{4}$  or  $1\frac{1}{2}$  inches in diameter was found between the right ureteral orifice and the right lobe of the prostate. The pedicle was grasped and the tumor mass removed. The base was found to be  $1\frac{1}{2}$  cm. in diameter, with induration around and back from the ureteral orifice. There was a small suspicious area lying between the midline from this larger area and a flattened area  $\frac{1}{2}$  by 1 cm. on the mucosa over the right lobe of the prostate. It seemed worthless to attempt to cure this case by excision of these areas. They were therefore cauterized and radium was implanted. Two radium needles of 12 millicuries each were inserted in the larger area and the others were surrounded by radium seeds of 1 millicurie. Bladder wound closed around them. Suprapubic bladder drainage.

**PATHOLOGICAL REPORT, DECEMBER 24**

A papillary tumor mass about the size of a plum. A microscopic examination shows solid stalks of epithelial cells having a central framework of vascular connective tissue. The cells are not atypical and there is no evidence of invasion. The appearances do not suggest malignancy.

Papilloma.

H. F. HARTWELL.

**FURTHER DISCUSSION**

Pathologically this has not apparently gone on to degeneration, and yet clinically, if we are to believe the story, it certainly suggests that, because of the nodules around the base of it. Of course we always have to say that perhaps it is what the surgeon wanted to feel and therefore he did feel it.

I think it is interesting that the x-ray showed the shadow of the bladder to be round and normal when there was a tumor an inch and a half in diameter.

They have changed their ideas; first they used pituitrin, then they used benzoyl in an attempt to relax.

This is the usual story of these difficult cases where they cannot get good drainage. The skin gets macerated and everybody gets discouraged.

This of course is the story of an old man with lowered resistance who following a severe operation gets a low-grade infection, does not do well, gets sepsis apparently above the diaphragm, and really peters out from the combination of sepsis and the wearing down of his powers of resistance.

We were told when I was a house officer that one of the causes of hiccups was sepsis in the prevesical space. I think that theory has died a death that it ought, because we see that infection a good many times without any hiccups, and I do think there is no connection. Also it is supposed to be evidence of poor kidney function. It comes as often with weakness and sepsis in this type of case as it will in this same type of case with poor kidney function. Because so far as we know this man's kidneys are in good shape. There is no reason to think they have all gone to pieces because of what he has been through.

I think Dr. Richardson will find a low-grade sepsis in the bladder, probably also in the kidneys, with trouble above the diaphragm. I should like to ask Dr. Cabot what else will be found to account for the pulse.

DR. CABOT: We have to be sure that it was a heart rate of thirty, not a pulse rate. If it was a physician who said that one would be surer than if it was a nurse, because small beats might have slipped through. And we should like to know whether it was regular or irregular. But I should say a heart rate as slow as that, if it is regular, is almost always heart block. That does not say that we shall find anything to account for it at necropsy. Toxic states can produce it with no anatomical cause found. But I do not think that we shall find anything more than his age would account for anyway, that is, arteriosclerosis and a big heart.

**CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)**

Carcinoma of the bladder.

Heart block.

Operation, suprapubic cystotomy, excision and cautery of carcinoma, radium implantation.

#### DR. EDWARD L. YOUNG'S DIAGNOSIS

Carcinoma of the bladder (from papilloma).

Infection of bladder and kidneys.

Pneumonia?

Heart block.

Hypertrophy and dilatation of the heart.

Arteriosclerosis.

#### ANATOMICAL DIAGNOSIS

##### 1. Primary fatal lesions

(Papilloma of the bladder.)

Suprapubic cystotomy.

##### 2. Secondary or terminal lesions

Focal pneumonia, double.

Arteriosclerosis.

Arteriosclerotic degeneration of the mitral and

aortic valves.

Arteriosclerotic degeneration of the kidneys.

Slight hypertrophy and dilatation of the heart.

Cystitis.

Soft spleen.

##### 3. Historical landmarks

Cysts of the kidneys.

Chronic pleuritis.

DR. RICHARDSON: There were a few old pleural adhesions at each apex. The bronchial glands were slightly enlarged, soft and juicy. In the posterior portion of the upper lobe of the right lung was a large focus of gray-red to gray pneumonia, showing fibrinous exudate over the pleura. In the lower lobe just beneath the pleura were several smaller similar foci. In the central portions of some of the foci there were small abscesses. In the left lung there was a focus of pneumonia just beneath the pleura in the posterior portion of the upper lobe, and there were a few foci in the lower lobe.

The heart weighed 360 grams,—full sized for him. The myocardium was a little lax. The mitral valve and the aortic valve showed a slight to moderate amount of arteriosclerotic degeneration, rather well marked at the base of the aortic cusps and in the mitral. In the region of the insertion of the posterior cusp there was a small fibrocalcereous column over which the curtain was fairly smooth. It was well away from the bundle of His.

The coronaries were free, fairly capacious, but showed areas of fibrocalcereous sclerosis with

considerable diminution of the lumen in places. The aorta above the diaphragm showed a slight to moderate amount of fibrous sclerosis, and in the abdominal portion there was a moderate amount of fibrous and fibrocalcereous sclerosis. The great branches showed a slight to moderate amount of fibrous sclerosis.

The spleen was rather small, the tissue rather mushy. The kidneys weighed 260 grams; the capsules stripped freely and the tissue was perhaps a little firmer than usual. The cut ends of the vessels showed fibrosis,—indications that we might find some foci of atrophy and some arteriosclerosis, and that is what was found microscopically. There was some arteriosclerotic degeneration, but not enough to be called arteriosclerotic nephritis. In the kidneys there were several cysts.

The bladder was empty. The mucosa showed here and there a few small reddish velvety patches. In the region of the orifice of the right ureter there was a small area of roughening, but with no definite tumor formation, and none elsewhere in the bladder wall. The microscopic sections confirmed this, simply showing chronic inflammatory tissue.

Culture from the heart blood was negative.

DR. YOUNG: I think this is a fairly good example of the benefit we can get from investigating hematuria early, because I think it is fair to assume that ten months earlier that papilloma might have been fulgurated.

### Book Review

*Intravenous Therapy: Its Application in the Modern Practice of Medicine.* By WALTON FOREST DUTTON, M.D. Philadelphia: F. A. Davis Company, 1924.

The author states that the book makes no attempt at originality of subject matter. He aims to bring together for the first time the known facts and important data regarding the use of intravenous therapy whether by means of blood transfusion, salt solution, serum or drugs.

Part I contains an historical outline of the subject and deals with methods of infusion of salt solution, of blood transfusion, and of intravenous medication. This part of the book should prove particularly useful to practitioners or students for purposes of reference.

Part II deals with intravenous medication as applied to diseases for which it has been used.

Unfortunately, little attempt has been made to evaluate the therapeutic methods described. This is an important desideratum because the use of intravenous medication seems likely to be carried to excess in the future, if, indeed, it has not already become something of a fad.

## THE BOSTON Medical and Surgical Journal

Established in 1828

Published by The Massachusetts Medical Society under the jurisdiction of the following-named committee:

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SUBSCRIPTION TERMS: \$5.00 per year in advance, postage paid for the United States, \$7.50 per year for all foreign countries belonging to the Postal Union.

Material for early publication should be received not later than noon on Saturday. Orders for reprints must be sent to the printer with galley proof of paper.

The Journal does not hold itself responsible for statements made by any contributor.

Communications should be addressed to The Boston Medical and Surgical Journal, 225 Massachusetts Ave., Boston, Mass.

### LAND FOR THE HARVARD MEDICAL SCHOOL DORMITORY HAS BEEN BOUGHT AND PAID FOR

"The trustees of the Francis Estate have conveyed to the President and Fellows of Harvard College the lot at the northwest corner of Longwood Avenue and Avenue Louis Pasteur, containing about 70,000 square feet of land."

This statement, which appeared in the Boston newspapers last week, indicates the first actual step in the campaign which is being conducted by the Harvard Medical Alumni Association to secure a dormitory. The statement means that the campaign has progressed to a very definite point and indicates that the dormitory is assured.

It is the association of Harvard Medical Alumni which is conducting the campaign, and it is important to note that the money for the land comes almost entirely from doctors, who are to be congratulated on their good showing.

From the first, it has been recognized that the doctors alone could not contribute enough to build the dormitory, and that they must have help from the laity. It has been recognized that the laity will help as soon as they know that the doctors themselves have done their part. This explains the heroic efforts on the part of district chairmen, of class secretaries, and of the committee, to make each doctor appreciate the

importance of his personal contribution, whether the amount is large or small. That each of nearly twelve hundred doctors has given an average of \$75.00 is again cause for rejoicing and congratulation.

In a short time, the committee hopes to be able to announce that over fifty per cent. of the doctors have contributed. This will mark the second step in the campaign and additional steps will then be taken with greater ease.

The campaign among the laity has begun. Let us hope that the doctors can make their friends appreciate the needs. We quote from a recent statement of the committee:

"The new dormitory, with rooms at first for 257 students, and later for 400 students, will bring the men together. They will meet at breakfast and go to their laboratories or to the hospitals in small groups. Most of them will return to the dining-hall for lunch and the living-room will furnish a brief period of healthy relaxation.

"At six o'clock, they will not disperse to various parts of the city, but will be drawn together by the dormitory. Will not the study of anatomy be more interesting if a student in an upper class seeks to refresh his mind in some technical point by interviewing the first year student? The older man will obtain his information, the younger man will be made to see clearly the practical application of what seems to him a pretty dry subject, and both men will make a new friend.

"Perhaps their discussions can be clarified by going to the room occupied by one of the younger instructors who lives in the building.

"Student medical societies meet often: to go across the city after supper is an effort and usually means the loss of a whole evening. How much better if the man could simply go to a room in his own building, take part in the discussion and still have time for something else!

"In short, the dormitory will make contact between the men easy. At the end of four years students will graduate and take away not only learning in the strict sense, but a feeling of true membership in a body of educated men. And these educational advantages are in addition to the material advantages which are only too obvious.

"Surely such a project will be supported generously."

### MEDIAEVAL MEDICINE

THE profession of medicine, with all the chivalry and much of the despotism of the middle-ages, has deliberately set itself to the pauperism of two classes of society: The wage earners with less and the young physicians with more pride than financial resources. The free or low-priced hospital clinic is not an unmixed blessing as it is at present generally conducted. De-

signed to give service to the needy poor, and experience to the inexperienced graduate in medicine, it has abandoned its ideals and abused its privileges, misled by the ambition to increase its attendance, and the desire to gather half-dollar fees from many of its patients who should be paying regular fees to the same physician, in their offices, now treating them free in the clinics.

As regards the young physicians and surgeons in their first few years of city practice, there is a general sentiment among many of the members of our own profession, that has spread to the laity, that the laborer is not worthy of his hire. We have heard the idea expressed, and from those whose word carries weight in the medical world, that it is better for a young man to live on borrowed money than to be paid a living income, especially if his bent is for investigative or academic work. Such an idea, a relic of the feudal system, is not worthy of the cultivated minds from which it emanated; few indeed, in other walks of life, would care to deny any man the privilege of economic independence.

There are few professions, besides medicine, so besieged for free or underpaid service, and there are none so willing to give it. Hundreds of thousands of dollars are given each year for medical charities, but is there always adequate allowance made for the physicians who are to administer them? Distinctly not. The poor, the near poor, and the apparently poor, must be served gratis, and the young doctor, struggling to make his expenses, must frequently treat freely and cheerfully, under these circumstances, the very patients who should be contributing to his support.

Our text, we know, is near to heresy in this part of the world, for tradition carries more weight than logic, but our argument is based on a logic older than tradition,—that the laborer is worthy of his hire.

#### ANOTHER STATE CAPITULATES

After a bitter fight of long duration between the medical profession and the chiropractors, an agreement has at last been reached by the State Department of Education and the State Medical Society of New York on the question of the recognition of chiropractic methods.

The recognition accorded is in the nature of a compromise in the form of an amendment to the Esmond medical registration bill. Under the terms of this amendment chiropractors will be allowed to register after they have taken a two-year course in certain fundamental medical subjects, prescribed and supervised by the state board of regents. Provision is specifically made that chiropractors shall not "practice medicine." "Graduates" of correspondence courses are not recognized by the bill.

After having had the satisfaction of announcing recently the defeat of the chiropractic bill for recognition in South Carolina, it is a disappointment to the JOURNAL to publish the compromise that has apparently been necessary in New York. Massachusetts is now literally hemmed in by States that have been forced to lower their standards.

We can only repeat that if every reputable physician in Massachusetts will communicate with his Representative in the Legislature, and influence one other voter to do the same, we may be saved from such a catastrophe.

#### DO HEIGHT AND WEIGHT TABLES IDENTIFY UNDERNOURISHED CHILDREN?

THE New York Association for Improving the Condition of the Poor has recently issued a booklet compiled by Louis I. Dublin, Statistician for the Metropolitan Life Insurance Company, and John C. Gebhart, Director of the Department of Social Welfare of the Association. The object of the studies reported was to determine the value of height and weight tables as indices of undernutrition.

It is well known that physicians and nutrition workers have frequently found discrepancies in these tables which seemed to indicate that their accuracy might be open to question. To settle this point Messrs. Dublin and Gebhart analyzed the examination records of 1878 boys and 2169 girls, under the care of the Association, among the Italians in the Mulberry district of New York City. The work was placed under the direction of Dr. L. C. Schroeder, who examined the apparently well children, coming under the observation of the health center. In this examination the diagnosis of undernutrition was based not on weight and height alone, but on the picture of the whole child, including such important items as the state of musculature, the lustre of the eyes, the color and bearing of the children, their posture, and the relative amount of subcutaneous fat. It was necessary, also, to adjust the standard Wood-Baldwin-Woodbury table to the relatively shorter stature of the Italian children.

In the case of well-nourished children it was found that the tables operated in close agreement with actual conditions, as 97.6 per cent. of all the boys, and 94.5 per cent. of all the girls, who were found to be clinically in a state of good nutrition, were also so selected by the standard weight tables. The interesting and important fact brought out by the investigation, however, is that 77.2 per cent. of the boys, and 67.1 per cent. of the girls, who were actually undernourished, would have been missed entirely if reliance had been placed solely on the standard tables with the 7 per cent. limit of underweight.

The youngest children, those under 6, showed the greatest deviation from the accepted standards as based on the weight tables. At the age of 3 only 7 per cent. of the children found to be actually undernourished would have been selected by the table, and at the age of 5 less than 2 per cent.

The conclusions to be reached by this study are that, valuable as the weight-height tables may be as a rough index of undernutrition, a careful physical examination of the child, with reference also to color, attention to studies, appetite and fatigue, must be taken as the final criterion.

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### Miscellany

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#### TENTH ANNIVERSARY MEETING OF THE CONFERENCE BOARD OF PHYSICIANS IN INDUSTRY

A meeting to celebrate the tenth anniversary of the organization of the Conference Board of Physicians in Industry was held in New York City, April 4 and 5, 1924. This conference, which was organized in April, 1914, for coöperative effort in introducing into industrial establishments the most effective measures for the treatment of injuries or ailments of employees, for promoting sanitary conditions in workshops, and for prevention of industrial diseases, has held 41 meetings since its organization.

At this meeting, which was attended by over a hundred physicians connected with industrial establishments, and industrial executives who came from all sections of the country east of the Mississippi River, addresses were made by Dr. Harlow Brooks, New York, on "Inspection in Physical Diagnosis"; Dr. J. J. Moorhead, New York, on "Traumatic Surgery—Its Development and Relation to Industry"; Dr. L. A. Shoudy, chief surgeon, Bethlehem Steel Company, on "Function of the Physician in Industry"; Dr. W. Gilman Thompson, president, Reconstruction Hospital, New York, on "Industrial Medicine and Medical Education"; Dr. O. P. Geier of the Cincinnati Milling Machine Company, Cincinnati, Ohio, on "Monopolistic State Insurance and Industry"; Dr. W. H. Park, president, on "American Public Health Association and Industrial Medicine"; Dr. E. Livingston Hunt, secretary of the New York State Medical Society, on "American Medical Association and Industrial Medicine"; Dr. R. C. Williams, for Surgeon-General Cumming, on "United States Public Health Service and Industrial Medicine."

Mr. C. R. Hook, vice-president of the American Rolling Mill Company, Middletown, Ohio, told of the value of industrial medical work from the employer's viewpoint, while Mr. Samuel Gompers, president of the American Federa-

tion of Labor, Washington, D. C., discussed the employee's interest in industrial medicine. Mr. M. W. Alexander, managing director of the National Industrial Conference Board, New York, reviewed the work of the Conference Board of Physicians in Industry and its influence upon industrial organizations, while Mr. Howell Cheney of Cheney Brothers, South Manchester, Conn., told the assembled physicians what industry requires of medical supervision.

The sentiment in practically all the discussions was that medical work in industry was a necessity and demanded by the existing social order; that only practitioners with high ideals of service and an adequate grasp of the problems to be solved could hope to be successful in this work; that it must be conducted on a high ethical plane and with strict regard to the scientific consideration of the work; and that, when properly conducted, it was a potent factor in advancing the cause of preventive medicine, both in personal and community health.

It was felt that medical work in industry did not antagonize or supplant the work of the private practitioner except in those cases where the services offered by private practitioners were not adequate to meet the needs of industry. On the other hand, the work of the capable private practitioner had been increased by the work of the physician in industry who by educational methods has aroused in the minds of the workers added interest in health subjects. By this means a spirit of coöperation is engendered which is beneficial to all parties concerned.

On Saturday, April 5, physicians attending this meeting were guests of the Post-Graduate Medical School and Hospital, New York, at a series of clinics arranged particularly to meet their needs.

Dr. J. J. Moorhead held an interesting operative clinic on hernias and demonstrated after-treatments of knee joint injuries, fractures, and hand and back injuries.

Professor Buchanan discussed anesthesia for reduction of fractures, dislocations and minor surgical operations.

Professor W. H. Meyer held an instructive clinic on x-ray diagnosis of thoracic lesions, bone tumors and diseases, fractures and dislocations, and foreign bodies.

Professor Halsey discussed diagnostic signs and methods of examination in common pulmonary and cardiac lesions, with particular reference to the advisability of employing cardiac defectives in industrial work.

Professor Ward McNeal demonstrated various laboratory aids in diagnosis and discussed the significance and value of certain tests.

F. L. RECTOR, M.D., *Secretary.*

10 East Thirty-ninth Street, New York City.



## HEALTH SECTION OF THE LEAGUE OF NATIONS

The Health Section of the League of Nations, according to the Bulletin of the United States Public Health Service, has outlined, in its report to the medical director, the work of the Service of Epidemiological Intelligence and Public Health Statistics. Progress has already been made in this work, due to the aid and coöperation of the various public health services and ministers of health.

The scope of activities of the Service of Epidemiological Intelligence and Public Health Statistics are set forth as follows:

- I. Epidemiological intelligence, including—
  1. Current epidemiological reports and publications, and
  2. Special epidemiological studies.
- II. Reports on health organization and current activities in the various countries.
- III. The study of official vital statistics and statistical procedure, including—
  1. Preparation of handbooks on official vital statistics, and
  2. Studies on the comparability of statistics.
- IV. Collective studies on vital and public health statistics.

## NEW ENGLAND SOCIETY OF PSYCHIATRY

The regular semi-annual meeting of the society was held on Thursday, April 3, at the State Infirmary, Tewksbury, Mass., as the guests of the superintendent, Dr. John H. Nichols. During the forenoon members were conducted through the wards of the hospital. Luncheon was served at 1 o'clock, after which a brief business meeting was held, Dr. Arthur H. Ruggles, the president of the society, presiding. This was followed by a very interesting program consisting of three papers by members of the society, as follows:

"An Experimental Study of Certain Motor Disturbances" (illustrated with moving pictures), Dr. Hugo Mella.

"Problems of the United States Veterans' Bureau in the Care of Neuro-Psychiatric Claimants," Dr. Frederick R. Sims.

"The Rapidly Disappearing State Hospital Pathologist," Dr. Otis F. Kelly.

## DR. WILLIAM H. PARK

The Paris Academy of Medicine has elected, as a foreign member, Dr. William H. Park, director of the Bureau of Laboratories of the New York Health Department.

## HAS INSULIN ALREADY CHECKED DIABETES MORTALITY?

One of the most encouraging items in the 1923 mortality statistics of the industrial policyholders of the Metropolitan Life Insurance Company is the drop in the diabetes death rate. The decline, it is true, was only 6.4 per cent., the death rate in 1923 being 16.1 per 100,000 as compared with 17.2 for 1922. But slight as is the drop it may have great significance; for it follows a period of three years during which time deaths from diabetes had been increasing continuously and at a considerable rate. Between 1919 and 1922 the rate rose 28 per cent. These figures for the company's industrial department relate to the great group of American and Canadian wage-earners; but there are also available from the ordinary and intermediate departments of the company (which include policyholders of a somewhat higher economic status) figures which show considerable declines in 1923 in deaths from this disease. Among the ordinary policyholders 7.8 death claims were paid in 1923 per 100,000 policies in force as compared with 10.5 claims in 1922; and in the intermediate department, 9.6 claims were paid as compared with 10.2 in 1922.

The interesting fact is, of course, that the lower diabetes death rate last year was contemporaneous with the beginning of the more or less general use of insulin to check the devastating effects of this disease.—Bulletin Metropolitan Life Insurance Company.

## APPROVAL OF A SAFETY DEVICE BY THE DEPARTMENT OF THE INTERIOR

Approval of a new type of safety device, a "self-rescuer," designed as a means of escape for persons accidentally caught in mine or other atmospheres containing carbon monoxide, has been given by the Department of the Interior, through the Bureau of Mines.

The self-rescuer consists of a pocket size canister with mouthpiece directly attached, filled with granular fused calcium chloride and granular hoolamite (mixture of special copper oxide and manganese dioxide), which causes carbon monoxide in air to unite with the oxygen at ordinary temperatures, forming harmless carbon dioxide. Cotton filters for removing smoke are also included in the canister. The self-rescuer and a nose clip for closing the nostrils are enclosed in a hermetically sealed brass case to prevent deterioration until used.

The self-rescuer is approved only for self-rescue from carbon monoxide. The Bureau of Mines does not recommend the use of the self-rescuer as a substitute for carbon monoxide gas masks, having large canisters designed to protect persons who are called upon voluntarily

to meet carbon monoxide in the course of their work. The approval rather is limited to self-rescue by persons who may be accidentally caught by carbon monoxide.

#### NEAR EAST RELIEF NEWS SERVICE

Jackie Coogan will forsake the movies for ten weeks this summer in order to lead a modern "Children's Crusade" throughout the United States in an appeal to the children of America for a million dollar shipload of foodstuffs for the destitute orphan children of the Near East, and then will sail in person to deliver the gifts to the Near East orphans in Greece, Palestine and Syria.

Jackie will start his campaign with a series of condensed milk appeals in the Pacific Coast cities as soon as he finishes work on his present picture, "A Boy of Flanders." Similar campaigns for carload lots of milk, flour, clothing and quinine will then be held across the continent.

Churches, Sunday schools, public schools, moving pictures, theatres, clubs and fraternal societies, together with children's organizations generally, throughout the nation, will cooperate in the conducting of the campaign to secure the million dollar ship cargo of foodstuffs.

The Boy Scouts of America organization, in addition to cooperating in the raising of the cargo, will greet Jackie in all of those cities through which he passes on his trip across the continent, just prior to his sailing.

The objective of the campaign is 100 carloads of foodstuffs. Overseas shipment will be made in the late summer from New York, it was said.

#### MORTALITY FROM DIABETES

The Metropolitan Life Insurance Company announces a most encouraging drop in the diabetes death rate for 1923. The decline was 6.4 per cent., the death rate in 1923 being 16.1 per 100,000, as compared with 17.2 for 1922. The significance of this drop, however, is the fact that it follows a three-year period during which the rate had been continuously rising; in fact, between 1919 and 1922 the rate rose 28 per cent. A still more encouraging figure for 1924 is expected, for the January death rate for the industrial policyholders was 17.2, as compared with 20.3 for January, 1923. These improved figures are, of course, coincident with the more general use of insulin.

#### A GOOD START

Over 50,000 fewer people died in the United States during the first nine weeks this year than last year, if figures gathered by the Bureau of the Census from cities and announced by Surgeon-General Hugh S. Cumming, of the United States Public Health Service, indicate a nation-

wide condition. The unusually low mortality rate from December 30 to March 1 is only 13.8 per thousand population per year, contrasted with nearly 16.5 per thousand for the same period last year.

This year has made the healthiest start on record, statistics of the Metropolitan Life Insurance Company, just announced by Dr. Louis I. Dublin, indicate. January lowered the first month record of last year and February did still better. Tuberculosis mortality dropped 13 per cent., heart disease 22 per cent., apoplexy 11 per cent., and Bright's disease 14 per cent. from the February, 1923, rates. Influenza killed only about one-fourth as many as last year. Diabetes this January took only 17.2 per 100,000, as compared with 20.3 for January of last year, and an even more pronounced decline was recorded for February.—*Science*.

#### UNITED STATES PUBLIC HEALTH SERVICE

##### HYGIENE OF OLD AGE

In a recent broadcast on the "Hygiene of Old Age," Surgeon-General Hugh S. Cumming makes a plea for a better understanding of this condition and argues for an attitude of optimism and cheerfulness when dealing with elderly people.

"There is too much of a tendency among persons reaching a certain age to persuade themselves that they have reached the last page of the book of life," says Dr. Cumming. At this point, he continues, "many seem to think that both mental and physical activities should be relinquished. The contrary viewpoint should hold. Efforts should be made to preserve such an equanimity of mind and purpose that old age will become a period of comfort and enjoyment. Old age should be a physiological change of not unpleasant nature. Mental as well as physical diversion is essential to true happiness in old age. The reading of current newspapers and periodicals or of choice standard literature of the past is a definite antidote to the frequent habit of introspection and the tendency of the aged to despond. Sewing, weaving, simple carpentry, or other light manual occupations requiring dexterity and mental application are useful supplementary measures. The inclusion of the elderly in social gatherings and spirited conversations with younger persons is often stimulating. It should not be felt that a person is no longer entitled to an interest in life because he is old."

#### CHARLES WILLIAM ELIOT LOAN FUND

An anonymous loan fund of \$2000 to assist needy students in the school has been established at the Harvard Medical School in honor of President Emeritus Charles W. Eliot.

### News Items

**BEVERLY HOSPITAL.**—A demonstration clinical meeting was held at the Beverly Hospital, Tuesday, April 15, at 4 p. m. Interesting cases were shown and open for discussion.

**DR. JOHN B. HAWES** has resigned from the Massachusetts General Hospital. While he was on the staff of the hospital Dr. Hawes was particularly active in developing the Pulmonary and Tuberculin Clinics.

**ALABAMA MEDICAL SOCIETY.**—Drs. Bronson Crothers, Daniel F. Jones, Roger I. Lee and James S. Stone are in Alabama this week at the invitation of the Alabama Medical Society, to give lectures and clinics at the annual meeting of the society.

**MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.**—The annual meeting of the society was held at the Colonial Club, Quincy Street, Cambridge, on April 16, at 11 a. m. The annual oration was delivered by Dr. Horace P. Stevens of Cambridge. Subject: "Some Urgent Surgical Conditions of the Abdomen." The annual dinner was served at 1 p. m.

**MEDICAL STAFF MEETING.**—The regular quarterly meeting of the medical staff of the Lawrence General Hospital was held at the Nurses' Home, Monday, April 7, at 11 a. m. Preparations were made for the professional program to be presented at the hospital on Wednesday, May 7, to the members of Essex North District Medical Society, upon the occasion of the society's annual meeting.

**MEETING OF THE BOSTON HEALTH LEAGUE, INC.**—The Department on Health, Boston Council of Social Agencies, held a meeting on Wednesday, April 16, in the Small Hall, Twentieth Century Club, 3 Joy Street. Subject: The Ten-Year Preventive Child Tuberculosis Program of the State Department of Health and Its Relation to the Boston Health and Social Agencies. 1—Dr. Eugene R. Kelley, Massachusetts Commissioner of Public Health: The Program. 2—Dr. Sumner H. Remick, Director, Division of Tuberculosis: The Problem and Its Cost. 3—Dr. John I. Pinekney, Chief of Clinics, Division of Tuberculosis: Clinics and Their Value.

**CLINICAL STAFF MEETING** of the Lawrence General Hospital was held on Tuesday, April 8, at 8.30 p. m. Subject: Clinical Material. Program:

1. Case of late meningitis, complicated with diabetes insipidus, following skull fracture, G. S. Allen, M.D.

2. Five cases of diphtheria, each presenting one unusual feature, J. F. Walch, M.D.

3. A case of scarlet fever, with a discussion of the probable period of isolation in this disease, W. D. Walker, M.D.

4. A case of probable tear of uterus from a sharp bone during birth of a monster, T. W. Murphy, M.D.

**REMOVALS.**—Dr. Andrew H. Fuller has moved from Templeton, in the Worcester North District, to West Upton, in the Worcester District.

Dr. Bernard I. Goldberg now has his office at 491 Commonwealth Avenue, Boston.

Dr. Charles David Jones has changed his Boston office from 137 Newbury Street to 395 Commonwealth Avenue.

Dr. Samuel M. Levin has moved from Brockton (Plymouth) to Malden (Middlesex South), where he has an office at 247 Bryant Street.

Dr. Saul M. Marcus has moved from Beverly to Peabody, where he has established an office at 67 Main Street.

### Correspondence

#### AMERICAN MEDICAL ASSOCIATION

##### COUNCIL ON PHARMACY AND CHEMISTRY

##### Mr. Editor:

In addition to the articles previously enumerated the following have been accepted:

Parke, Davis and Co.: Apothesine, Apothesine Solution, Apothesine Hypodermic Tablets 0.08 Gm. (1¼ Gr.), Apothesine and Adrenalin Hypodermic Tablets, Apothesine and Adrenalin Hypodermic Tablets (R "B"), Apothesine and Adrenalin Hypodermic Tablets Cylindrical (for pressure anesthesia), Apothesine Ointment, Pituitrin "S" (Surgical).

E. R. Squibb and Sons: Cod-Liver Oil-Squibb.

United States Standard Products Co.: Acne Vaccine, Gonococcus Vaccine, Pertussis (Whooping Cough) Vaccine, Staphylococcus Combined Vaccine, Streptococcus Vaccine, Typhoid Vaccine, Typhoid Paratyphoid Vaccine Combined, Acne Vaccine Combined, Normal Horse Serum, Diphtheria Antitoxin, Refined and Concentrated, Diphtheria Toxin-Antitoxin Mixture (0.1 L+), Diphtheria Toxin for Schick Test and Control, Tetanus Antitoxin.

W. A. PUCKNER, Secretary.

### DEATH NOTICES

**DR. T. MITCHELL PRUDDEN**, one of the most distinguished pathologists in New York City, died April 10, 1924, at the age of seventy-four years.

A native of Middlebury, Conn., Dr. Prudden received his education at the Sheffield Scientific School and the Yale Medical School, graduating in 1872 and 1875, respectively. From 1878 to 1892 he was assistant in pathology and histology, then director of the pathological and bacteriological laboratory of the College of Physicians and Surgeons, the institution where he was professor of pathology from the latter year until 1909. Thereafter he devoted himself to literary and scientific work.

Since its foundation in 1901, Dr. Prudden had been vice-president of the Board of Scientific Directors of the Rockefeller Institute for Medical Research. He

was formerly president of the New York Pathological Society and the Practitioners Society of New York. His Text-book of Pathology, 1886, has gone through eleven editions, the last being issued in 1919. Dr. Prudden was unmarried.

DR. AUGUSTUS WALKER BUCK, a surgeon of Fall River, died suddenly at his home, April 12, 1924, at the age of 58.

He was a graduate of the University of Pennsylvania Medical Department in 1892, joined the Massachusetts Medical Society the following year, and settled in Fall River. He was a member of the American College of Surgeons, and of the American Medical Association.

DR. ARTHUR STANLEY TORREY, a Fellow of the Massachusetts Medical Society, was found dead in bed at his home in Gloucester, April 8, 1924. His death was thought to be due to heart disease. Dr. Torrey was born in Guysboro, Nova Scotia, Nov. 15, 1884. He was graduated from Dartmouth Medical School in 1909, and had practised in Gloucester, where he gave chief attention to surgery.

He is survived by a widow and a daughter.

Dr. Torrey, besides being a member of the American Medical Association, was a Shriner, an Elk, and an Odd Fellow.

#### NOTICES

#### A CORRECTION

Notice of the death of Dr. Will Howard Swan, which appeared in a Western journal recently, was erroneous, due to mistaken identity.

#### BOSTON MEDICAL HISTORY CLUB

Boston Medical Library, Monday, April 21, at 8 p.m. Annual meeting. Election of officers. John Donley, M.D., A Note on the Experimental Neurology of Galen. Henry Viets, M.D., A Fifteenth Century Medical Library. Sir D'Arcy Power, of London, will speak informally on some subject of historical interest.

JOHN W. CUMMIN, M.D., *Secretary.*

#### THE HARVARD MEDICAL SOCIETY

The next regular meeting of the Harvard Medical Society will be held as usual in the amphitheatre of the Peter Bent Brigham Hospital, April 22, 1924, at 8:15 p.m. Program: (1) Exhibition of Cases; (2) Pituitary Study. Speaker, Professor Herbert M. Evans, of the University of California. All members of the medical profession, medical students and nurses are invited.

GILBERT HORRAX, *Secretary.*

#### MASSACHUSETTS SOCIETY OF EXAMINING PHYSICIANS

The annual meeting and dinner of the Massachusetts Society of Examining Physicians will be held on Wednesday evening, April 23, 1924, at the Copley Plaza. Business meeting, 6:30 p.m. Election of officers. Dinner at 7 p.m. \$2.50 per plate.

Communications: Diabetes and the Examining Physician, Dr. E. P. Joslin; The Registry of Bone Sarcoma, Dr. E. A. Codman; Industrial Dermatoses, Dr. C. Morton Smith.

A. P. CORNWALL, M.D., *President.*

WM. PEARCE COUES, M.D., *Secretary.*

#### DOES PUBLIC HEALTH PAY?

The Community Health Association will hold a meeting on Monday evening, April 21st, at 8 o'clock, in the New Hancock Hall, 197 Clarendon Street, Boston.

Dr. Haven Emerson will address the meeting. His subject is "Does Public Health Pay?"

The Community Health Association is a combination of several health organizations, under the leadership of Mr. William Arthur Dupee, President. Miss Mary Beard is the general director.

This meeting will be most interesting and instructive and should be attended by all interested in health problems. Physicians especially should make plans to attend. The subject and the speaker warrant endorsement.

#### ESSEX SOUTH DISTRICT MEDICAL SOCIETY

The censors of Essex South will meet for examination of candidates at Salem Hospital, Thursday, May 1st, at 3:30 p.m. Candidates should present their applications and diplomas to R. E. Stone, Secretary, 221 Cabot Street, Beverly, one week in advance. Essex South annual meeting, Relay House, Nahant, Wednesday, May 7, 6:30 p.m. Dr. George B. Magrath will speak on "The Application of Scientific Medicine to the Uses of the Law."

RALPH E. STONE, *Secretary.*  
Essex South.

#### THE ANNUAL MEETING OF THE NATIONAL TUBERCULOSIS ASSOCIATION

The twentieth annual meeting of the association will be held in Atlanta, Ga., May 5th to 10th. The sections are as follows:

Clinical, Dr. W. L. Dunn, Chairman.  
Pathological, Dr. G. W. McCoy, Chairman.  
Nursing, Miss Bernice Billings, Chairman.  
Sociological, Dr. Robert G. Patterson.

#### NATIONAL BOARD OF MEDICAL EXAMINERS

The attention of physicians intending to take examinations before this board is called to the following announcements:

Part I, June 19th, 20th, and 21st, 1924.

Part II, June 20th and 21st, 1924.

All applications for these examinations must be made on or before May 15th, 1924.

Further information may be obtained from the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

#### ANNUAL HEALTH EDUCATION CONFERENCE

At the invitation of the Massachusetts Institute of Technology, a working conference in Health Education, is to be held June 23-28, at Cambridge, Massachusetts. The conference called by the Health Education Division of the American Child Health Association will be limited to 100. Registration must be made in advance. Address Emma Dolfinger, 370 Seventh Avenue, New York City.

#### COURSE IN DERMATOLOGY AND VENEREOLOGY

Professor L. M. Pautrier, of the Faculty of Medicine of Strasbourg, offers a course in Dermatology and Venereology extending from the twenty-second of September to the eighth of November, 1924. He will be assisted by Professors A. Barré, Clinical Neurology; Léon Blum, Clinical Medicine; Duverger, Clinical Ophthalmology; and Merken, Clinical Medicine.

## CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announce that applications will be received until June 30, 1924, for the examination for physician, Grade A, neuropsychiatry. The following vacancies are to be filled:

1 vacancy in the U. S. Veterans' Bureau at Boston, Mass.—Salary \$3000 per annum, full-time duty.

4 vacancies in the U. S. Veterans' Hospital at West Roxbury, Mass. Salary \$1800 per annum and quarters, subsistence, and laundry; full-time duty.

1 or more vacancies in the U. S. Veterans' Hospital at Northampton, Mass. Salary \$1800 per annum and quarters, subsistence and laundry; full-time duty.

Information and application forms may be secured from the local secretary at any of the above-named places or from the secretary of the First U. S. Civil Service District, Custom House Form, Boston 9, Mass.

## UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces open competitive examinations for physiotherapy aide and physiotherapy pupil aide.

The duties of physiotherapy aides consist of administering physiotherapy in its several branches—massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy; active, passive, resistive, and assistive exercises and remedial gymnastics; keeping daily record of the work and progress of each and every patient coming under direction and treatment; and making the required reports of the activities of the reconstruction work in physiotherapy.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil-service examiners, at the post office or customhouse in any city.

DISEASES REPORTED TO MASSACHUSETTS  
DEPARTMENT OF PUBLIC HEALTH

WEEK ENDING MARCH 29, 1924

| Disease                                 | No. of Cases | Disease                    | No. of Cases |
|---|--------------|----------------------------|--------------|
| Anterior poliomyelitis                  | 2            | Pneumonia, lobar           | 115          |
| Chicken-pox                             | 261          | Scarlet fever              | 527          |
| Diphtheria                              | 178          | Septic sore throat         | 7            |
| Dog-bite requiring anti-rabic treatment | 6            | Syphilis                   | 44           |
| Encephalitis lethargica                 | 3            | Tetanus                    | 2            |
| Epidemic cerebrospinal meningitis       | 1            | Suppurative Conjunctivitis | 28           |
| German measles                          | 53           | Trachoma                   | 2            |
| Gonorrhea                               | 103          | Tuberculosis, pulmonary    | 132          |
| Influenza                               | 17           | Tuberculosis, other forms  | 16           |
| Measles                                 | 993          | Typhoid fever              | 6            |
| Mumps                                   | 391          | Whooping cough             | 81           |
| Ophthalmia neonatorum                   | 21           |                            |              |

WEEK ENDING APRIL 5, 1924

| Disease                           | No. of Cases | Disease                    | No. of Cases |
|-----------------------------------|--------------|----------------------------|--------------|
| Chicken-pox                       | 213          | Septic sore throat         | 12           |
| Diphtheria                        | 171          | Syphilis                   | 64           |
| Encephalitis lethargica           | 1            | Tetanus                    | 2            |
| Epidemic cerebrospinal meningitis | 1            | Suppurative conjunctivitis | 6            |
| German measles                    | 85           | Trachoma                   | 2            |
| Gonorrhea                         | 103          | Trichinosis                | 1            |
| Influenza                         | 14           | Tuberculosis, pulmonary    | 106          |
| Measles                           | 995          | Tuberculosis, other forms  | 32           |
| Mumps                             | 410          | Typhoid fever              | 6            |
| Ophthalmia neonatorum             | 21           | Whooping cough             | 111          |
| Pneumonia, lobar                  | 152          |                            |              |
| Scarlet fever                     | 463          |                            |              |

## CENSORS' MEETING

The censors of the Suffolk District Medical Society will meet for the examination of candidates at the Medical Library, No. 8 The Fenway, Thursday, May 1, 1924, at 4:00 o'clock.

Candidates should make personal application to the Secretary, and present their medical diploma at least one week before the examination.

LESLEY H. SPOONER,  
Secretary.

520 Commonwealth Avenue.

## SOCIETY MEETINGS

## DISTRICT SOCIETIES

*Bristol South District Medical Society:*

The annual meeting will be held in New Bedford, May 1, 1924.

*Essex North:*—Annual meeting at Lawrence General Hospital, May 7, 1924.

*Essex South District Medical Society:*

May 7, 1924:—Annual meeting, Relay House, Nahant, in conjunction with Lynn Medical Fraternity.

*Framlingham District:*—Society meets at Greenfield the second Tuesday of March, May, July, September. Annual meeting in May.

*Hampden District:*—The meetings for the year are as follows:

April, 1924, at Springfield; annual meeting.

*Hampshire District Medical Society:*

Meetings held bi-monthly, the second Wednesday in the month, at Boyden's Restaurant, Northampton.

*Norfolk South District:*—Meetings first Thursday of each month at 11:30 a. m., April and May, at United States Hotel, Boston.

The May meeting is a stated meeting.

*Suffolk District Medical Society:*

April 30, 1924:—Annual meeting to be held at the Boston Medical Library at 8:15 p. m.

*Worcester District:*—The meetings for the year are as follows:

May 8:—Annual meeting.

## STATE, INTERSTATE AND NATIONAL SOCIETIES

May 1-3-5:—American Climatological and Clinical Association will meet at The Ambassador, Atlantic City, for its annual convention.

June 8 and 4:—American Urological Association at Ambassador Hotel, Atlantic City, U. S.

## PASTEURIZATION OF ICE CREAM

The following addition to the New York State Sanitary Code was recently adopted by the Public Health Council of the New York State Department of Health, to take effect January 1, 1924:

Regulation 13-a. Ice Cream. "No ice cream shall be sold or offered for sale unless the milk and cream used in the manufacture thereof shall have been pasteurized."—Health Officers' Bulletin, New York State Department of Health, November, 1923.

## "WHOOPIING COUGH"

Whooping cough killed 137 children in Chicago in the year 1923. On an average, it kills well over a hundred children and brings sickness and suffering to three or four thousand others each year.

As a slayer of little children, it ranks along with scarlet fever and measles, though this fact is not commonly understood.—Chicago Department of Health.

It is as serious in Massachusetts as it is in Illinois.